DEPARTMENT OF NATURAL RESOURCES

LAW ENFORCEMENT DIVISION

WHOLESALE FISH DEALERS REPORT FORMS #9165

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Source: 1987 AACS.

LOCAL HUNTING AND FIREARMS CONTROLS

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Source: 1982 AACS.

MACKINAC ISLAND STATE PARK COMMISSION

GENERAL RULES

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R 318.111
Source: 2002 AACS.

R 318.112
Source: 2002 AACS.

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NATURAL RESOURCES COMMISSION

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Source: 1988 AACS.

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R 322.1001
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R 322.1002
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SURFACE WATER QUALITY DIVISION

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DEPARTMENT OF NAUTURAL RESOURCES

NATURAL RESOURCES COMMISSION

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R 323.951
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Source: 1998-2000 AACS.

PART 21. WASTEWATER DISCHARGE PERMITS

R 323.2101
Source: 2003 AACS.

R 323.2102 Definitions; A to F.
Rule 2102.As used in this part:
(a) “Act” means 1994 PA 451, MCL 324.3101 et seq., and the rules promulgated under the act.
(b)“Animal feeding operation (AFO)” means a lot or facility, other than an aquatic animal production facility, where the animals, other than aquatic animals, have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period, and crops, vegetation, forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility.
(c)“Applicant” means a person who applies to the department for a state or national permit to discharge waste or wastewaters into the waters of the state by an NPDES application form or a state permit application form.
(d)“Application” means either the uniform national NPDES application form, including subsequent additions, revisions, or modifications thereof, promulgated by the administrator of EPA and adopted for use by the

department or a state permit application form for applying for a permit.
(e)"Approved control plan" means the plan which is prepared by an authorized public agency, which is approved by the department pursuant to the provisions of section 9110 of part 91 of the act, and which contains the soil erosion and sedimentation control procedures that govern all construction activities normally undertaken by the authorized public agency.
(f)"Authorized public agency" means a state, local, or county agency that is designated pursuant to the provisions of section 9110 of part 91 of the act to implement soil erosion and sedimentation control requirements with regard to construction activities undertaken by the agency.
(g)"Authorized representative" means a person who has written authorization from the construction permittee to sign the notice of coverage in the name of the construction permittee.
(h)"Certified storm water operator" means an individual who has been certified by the department pursuant to the provisions of section 3110 of part 31 of the act as properly qualified to operate treatment or control facilities for storm water discharges.
(i)"Concentrated animal feeding operation (CAFO)" means an AFO that is defined as a large CAFO or a medium CAFO, or that is designated by the department under R 323.2196(3) as a medium CAFO or a small CAFO.Two or more AFOs under common ownership are considered to be a single AFO for the purposes of determining the number of animals at an operation, if they adjoin each other or if they use a common area or system for the disposal of wastes.
(j)"CAFO process wastewater" means water directly or indirectly used in the operation of a CAFO for any of the following:
(i)Spillage or overflow from animal or poultry watering systems.
(ii)Washing, cleaning, or flushing pens, barns, manure pits, or other AFO facilities.
(iii)Direct contact swimming, washing, or spray cooling of animals.
(iv)Dust control.
(v)Any water which comes into contact with, or is a constituent of, any raw materials, products, or byproducts including manure, litter, feed, milk, eggs, or bedding.
(k)"Construction activity" means a man-made earth change or disturbance in the existing cover or topography of land for which a national permit is required pursuant to the provisions of 40 C.F.R. §122.26(a) (2000) and which is any of the following:
(i)Five acres or more in size and defined as a construction activity pursuant to the provisions of 40 C.F.R. §122.26(b)(14)(x) (2000).
(ii)One acre or more in size and defined as a small construction activity pursuant to the provisions of 40 C.F.R. §122.26(b)(15) (2000).
(iii)Less than 1 acre of total land area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb 1 acre or more.
The term includes clearing, grading, and excavating activities.The term does not include the practices of clearing, plowing, and tilling soil and harvesting for the purpose of crop production.
(l)"Construction permittee" means a person who is deemed to have a national permit pursuant to the provisions of R 323.2190 and who owns or holds a recorded easement on the property where a construction activity is located, is constructing in a public right-of-way in accordance with the provisions of sections 13, 14, 15, and 16 of 1925 PA 368, MCL 247.183, 247.184, 247.185, and 247.186, or is the authorized public agency if a construction activity is carried out by the authorized public agency.
(m)"Department" means the director of the department of environmental quality or his or her designee to whom the director delegates a power or duty by written instrument.
(n)"Discharge" means any direct or indirect discharge of any waste, waste effluent, wastewater, pollutant, or any combination thereof into any of the waters of the state or upon the ground.
(o)"Discharger" means any person who discharges, directly or indirectly, any substance defined by section 3109 of part 31 of the act, any treated or untreated waste, waste effluent, wastewater, or pollutant; or cooling waters into any of the waters of the state or upon the ground.
(p)"Draft permit" means a draft of a permit which is proposed to be issued by the department, which is prepared by staff of the department before public notice of an application for a permit by a discharger, and which contains proposed effluent standards and limitations, proposed compliance schedules, and other proposed conditions or restrictions deemed necessary by the department for a discharge.
(q)"Effluent standards and limitations" means all state or federal effluent standards and limitations on quantities, rates, and concentrations of chemical, physical, biological, and other constituents to which a waste or

wastewater discharge may be subject under the federal act or part 31 of the act, including all of the following:
(i)Effluent limitations.
(ii)Standards of performance.
(iii)Toxic effluent standards and prohibitions.
(iv)Pretreatment standards.
(v)Schedules of compliance.
(r)"EPA" means the United States environmental protection agency.
(s)"Fact sheet" means a description of a discharge which is available to the public, which is prepared by the department pursuant to the guidelines, and which includes all of the following information:
(i)Information on the location of the discharge.
(ii)Rate or frequency of the discharge.
(iii)Components of the discharge.
(iv)Proposed determinations of the department regarding the discharge.
(v)The location and identification of uses of the receiving waters.
(vi)Water quality standards and procedures for formulation of final determinations on the discharge by the department.
(t)"Federal act" means the federal water pollution control act, commonly referred to as the clean water act, Public Law 92-500, as amended by Public Law 95-217, Public Law 95-576, Public Law 96-483, Public Law 97-1171, and Public Law 100-4, 33 U.S.C. §1251 et seq., and the rules and regulations promulgated thereunder.
History:1954 ACS 77, Eff. Oct. 17, 1973; 1979 AC; 1985 MR 3, Eff. Apr.11, 1985; 1992 MR 10, Eff. Nov. 13, 1992; 2003 MR 10, Eff. May 15, 2003; 2005 MR 6, Eff. Apr. 6, 2005. 15, 2003.

R 323.2103 Definitions; G to O.
Rule 2103.As used in this part:
(a)"General permit" means a national permit issued authorizing a category of similar discharges.
(b)"Guidelines" means the federal guidelines promulgated by EPA entitled "Part 123 - State Program Elements Necessary for Participation in the National Pollutant Discharge Elimination System," 40 C.F.R. §123 et seq. (1984).
(c)"Illicit connection" means a physical connection to a separate storm sewer that primarily conveys non-storm water discharges other than uncontaminated groundwater into the storm sewer; or a physical connection not authorized or permitted by the local authority, where a local authority requires authorization or a permit for physical connections.
(d)"Illicit discharge" means any discharge to, or seepage into, a separate storm sewer that is not composed entirely of storm water or uncontaminated groundwater.Illicit discharges include non-storm water discharges through pipes or other physical connections; dumping of motor vehicle fluids, household hazardous wastes, domestic animal wastes, or litter; collection and intentional dumping of grass clippings or leaf litter; or unauthorized discharges of sewage, industrial waste, restaurant wastes, or any other non-storm water waste directly into a separate storm sewer.
(e)"Industry" means a private person, corporation, firm, plant, or establishment that directly or indirectly discharges waste or wastewater into the waters of the state.
(f)"Land application area" specifically for CAFOs means land under the control of an AFO owner or operator, whether it is owned, rented, leased, or subject to an access agreement to which production area waste or CAFO process wastewater is or may be applied.Land application area includes land not owned by the AFO owner or operator but the AFO owner or operator has control of the land application of production area waste or CAFO process wastewater.
(g)"Large CAFO" is an AFO that stables or confines as many as or more than the numbers of animals specified in any of the following categories:
(i)700 mature dairy cows, whether milked or dry.
(ii)1,000 veal calves.
(iii)1,000 cattle other than mature dairy cows or veal calves.Cattle includes heifers, steers, bulls, and cow/calf pairs.
(iv)2,500 swine each weighing 55 pounds or more.
(v)10,000 swine each weighing less than 55 pounds.
(vi)500 horses.
(vii)10,000 sheep or lambs.
(viii)55,000 turkeys.

(ix) 30,000 laying hens or broilers, if the AFO uses a liquid manure handling system.
(x) 125,000 chickens (other than laying hens), if the AFO uses other than a liquid manure handling system.
(xi)82,000 laying hens, if the AFO uses other than a liquid manure handling system.
(xii)30,000 ducks, if the AFO uses other than a liquid manure handling system.
(xiii)5,000 ducks, if the AFO uses a liquid manure handling system.
(h)"Local limit" means a specific prohibition or limit on discharges of pollutants or pollutant parameters by a nondomestic source to a POTW that are set by a POTW in accordance with an approved pretreatment program.
(i)"Mailing list" means a permanent list of persons who request notification and information on public hearings, permits, and other NPDES forms that is prepared and maintained by the department pursuant to the guidelines, these rules, and 1969 PA 306, MCL 24.201 et seq.
(j)"Management agency" means an areawide waste treatment management agency that is designated by the governor pursuant to the provisions of section 208(a) of the federal act.
(k)"Manure" is defined to include manure, bedding, compost, and raw materials or other materials commingled with manure or set aside for disposal.
(l)"Maximum extent practicable" or "MEP" means implementation of best management practices by a public body to comply with an approved storm water management program as required in a national permit for a municipal separate storm sewer system, in a manner that is environmentally beneficial, technically feasible, and within the public body's legal authority.
(m)"Medium CAFO" is defined as the following:
(i)Is an AFO that stables or confines the numbers of animals specified in any of the categories listed in subdivision (ii) of this subrule, and any of the following are met:
(A)Has been designated by the department as a CAFO under R 323.2196(3).
(B)Pollutants are discharged from the production area into waters of the state through a manmade ditch, pipe, tile, swale, flushing system, or other similar manmade conveyance.
(C)Pollutants are discharged directly into waters of the state from the production area which originate outside of and pass over, across, or through the facility or that otherwise come into direct contact with the animals confined in the operation.
(ii)Includes the following number and type of animals:
(A)200 to 699 mature dairy cows, whether milked or dry.
(B)300 to 999 veal calves.
(C)300 to 999 cattle other than mature dairy cows or veal calves.Cattle includes heifers, steers, bulls, and cow/calf pairs.
(D)750 to 2,499 swine each weighing 55 pounds or more.
(E)3,000 to 9,999 swine each weighing less than 55 pounds.
(F)150 to 499 horses.
(G)3,000 to 9,999 sheep or lambs.
(H)16,500 to 54,999 turkeys.
(I)9,000 to 29,999 laying hens or broilers, if the AFO uses a liquid manure handling system.
(J)37,500 to 124,999 chickens (other than laying hens), if the AFO uses other than a liquid manure handling system.
(K)25,000 to 81,999 laying hens, if the AFO uses other than a liquid manure handling system.
(L)10,000 to 29,999 ducks, if the AFO uses other than a liquid manure handling system.
(M)1,500 to 4,999 ducks, if the AFO uses a liquid manure handling system.
(n)"Minor discharge" means a discharge of wastewater which has a total volume of less than 50,000 gallons on every day of the year, which does not affect the waters of another state, and which is not identified by the department, the regional administrator, or by the administrator of EPA, in regulations issued by him or her pursuant to the provisions of section 307(a) of the federal act, as a discharge which is not a minor discharge, except that a discharge is not a minor discharge if there is a discharge of less than 50,000 gallons on any day of the year which represents 1 of 2 or more discharges from a single person, municipality, or industry that, in total, is more than 50,000 gallons on any day of the year.
(o)"Municipal separate storm sewer system" or "MS4" means all separate storm sewers that are owned or operated by the United States, a state, city, village, township, county, district, association, or other public body created by or pursuant to state law, having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under state law, such as a sewer district, flood control district, or drainage district, or similar entity, or a designated or approved management agency under section 208 of the

federal act that discharges to waters of the state.This term includes systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares.The term does not include separate storm sewers in very discrete areas, such as individual buildings.
(p)"National permit" means an NPDES permit, or equivalent document or requirements, issued by the department to a discharger pursuant to sections 3106 and 3112 of part 31 of the act for discharges into surface waters.
(q)"New source" means a building, structure, facility, or installation from which waste, pollutants, or wastewater is or may be discharged into the surface or groundwaters of the state or on the ground and for which construction was commenced after publication of proposed regulations by EPA prescribing a standard of performance pursuant to the provisions of section 306(a) of the federal act that will be applicable to the source if the standard is thereafter promulgated in accordance with the provisions of section 306 of the federal act.
(r)"Noncompliance list" means a list of dischargers, which is prepared by the department pursuant to these rules and the guidelines for transmittal to the regional administrator, who fail or refuse to comply with a compliance schedule in a permit issued pursuant to part 31 of the act.
(s)"Nondomestic source" or "source of nondomestic wastewater" means an industry, commercial establishment, or other entity that discharges wastewater to a publicly owned treatment works other than, or in addition to, water-carried wastes from toilet, kitchen, laundry, bathing, or other facilities that are used for household purposes.
(t)"NPDES" means the national pollutant discharge elimination system established by the federal act.
(u)"NPDES form" means any issued permit and any uniform national form which is used by the department, which is developed for use in the NPDES, and which is prescribed in regulations promulgated by the administrator of EPA, including an NPDES application and a reporting form.
(v)"On-site disposal system" means a natural system or mechanical device used to collect, treat, and discharge or reclaim wastewater from 1 or more dwelling units without the use of community-wide sewers or a centralized treatment facility.
History:1954 ACS 77, Eff. Oct. 17, 1973; 1979 AC; 1985 MR 3, Eff. Apr.11, 1985; 1992 MR 10, Eff. Nov. 13, 1992; 2003 MR 10, Eff. May 15, 2003; 2005 MR 6, Eff. Apr. 6, 2005.

R 323.2104 Definitions; P to W.
Rule 2104.As used in this part:
(a)"Part 91 permitting entity" means an agency that is designated by a county board of commissioners pursuant to the provisions of section 9105 of part 91 of the act; an agency that is designated by a city, village, or township in accordance with the provisions of section 9106 of part 91 of the act; or the department if the construction activity is under the jurisdiction of 2 or more municipal or county enforcing agencies; or the department for soil erosion and sedimentation activities under part 615 or part 631 pursuant to the provisions of section 9115 of part 91 of the act.
(b)"Person" means an individual, partnership, association, corporation, industry, or public body.
(c)"Point source discharge" means a discharge that is released to the waters of the state by a discernible, confined, and discrete conveyance, including any of the following from which wastewater is or may be discharged:
(i)A pipe.
(ii)A ditch.
(iii)A channel.
(iv)A tunnel.
(v)A conduit.
(vi)A well.
(vii)A discrete fissure.
(viii)A container.
(ix)A concentrated animal feeding operation.
(x)A vessel or other floating craft.
The term does not include a legally established county or intercounty drain, except for a county or intercounty drain that has a POTW designated as part of the drain or a discharge otherwise required to be authorized by a national permit.
(d)"Production area" means that part of an AFO that includes animal confinement area, manure storage area, raw materials storage area, and waste containment areas.The animal confinement area includes open lots,

housed lots, feedlots, confinement houses, stall barns, free stall barns, milk rooms, milking centers, cowyards, barnyards, medication pens, walkers, animal walkways, and stables.The manure storage area includes lagoons, runoff ponds, storage sheds, stockpiles, under house or pit storages, liquid impoundments, static piles, and composting piles.The raw materials storage area includes feed silos, silage bunkers, and bedding materials.The waste containment area includes settling basins and areas within berms and diversions which separate uncontaminated storm water.Also included is any egg washing or egg processing facility, and any area used in the storage, handling, treatment, or disposal of mortalities.

(e)"Production area waste" means manure and any waste from the production area and any precipitation (e.g., rain or snow) which comes into contact with, or is contaminated by, manure or any of the components listed in the definition for "production area."Production area waste does not include water from land application areas.

(f)"Public body" means the United States, the state of Michigan, city, village, township, county, school district, public college or university, single purpose governmental agency; or any other body which is created by federal or state statute or law.

(g)"Publicly owned treatment works" or "POTW" means either of the following:

(i)A facility or facilities which are owned by a governmental entity and which are used or intended to be used for the collection and treatment of municipal wastewater, including sewage, liquid industrial waste, and storm water.

(ii)The owner or owners of a facility or facilities specified in paragraph (i) of this subdivision.

(h)"Regional administrator" means the EPA region V administrator.

(i)"Regulated MS4" means an MS4 that is required to have a national permit to discharge storm water into surface waters of the state pursuant to R 323.2161(c), (d), (e), or (f).

(j)"Regulated pollutants" means all of the following:

(i)Pollutants that are limited by categorical pretreatment standards as defined in R 323.2302(g).

(ii)Pollutants for which control measures on nondomestic sources are necessary to avoid noncompliance with effluent limitations established in the POTW's discharge permit.

(iii)Pollutants for which control measures on nondomestic sources are necessary to avoid restricting the POTW's approved residuals management program.

(iv)Pollutants for which control measures on nondomestic sources are necessary to avoid operational problems at the treatment facility or collection system.

(k)"Reporting form" means the uniform NPDES reporting form, including subsequent additions, revisions, or modifications thereof, which is promulgated by the administrator of EPA and which is adopted by the department for use in administering these rules, or a state form that is prescribed by the department for use in administering these rules, for reporting data and information to the department by a discharger on monitoring and other conditions of permits.

(l)"Runoff coefficient" means the fraction of total rainfall that will appear at a conveyance as runoff.

(m)"Separate storm sewer system" means a system of drainage, including, but not limited to, roads, catch basins, curbs, gutters, parking lots, ditches, conduits, pumping devices, or man-made channels, which has the following characteristics:

(i)The system is not a combined sewer where storm water mixes with sanitary wastes.

(ii)The system is not part of a publicly owned treatment works (POTW).

(n)"Site" means the area where a construction activity is physically located or conducted, including adjacent land that is used in connection with the construction activity.

(o)"Small CAFO" means an AFO that is designated a CAFO by the department under R 323.2196(3) and is not a medium CAFO.

(p)"Soil erosion and sedimentation control permit" means a permit that is issued pursuant to the provisions of part 91 of the act by a part 91 permitting entity.

(q)"Soil erosion control measures" means the measures or procedures to prevent or reduce the pollution of waters of the state that are required in the soil erosion and sedimentation control permit for the site or the selected control measures from the approved control plan that are applicable to the site.

(r)"Stabilization of earth change activity" means the proper placement, grading, or covering of soil or rock at a construction activity to ensure subsequent resistance to soil erosion, sliding, or other earth movement.

(s)"State permit" means a permit or equivalent document or requirements that are issued by the department to a discharger who discharges wastewater on the ground or into groundwaters.

(t)"Storm water" means storm water runoff, snow melt runoff, and surface runoff and drainage.

(u)"Storm water discharge associated with industrial activity" means the discharge from any conveyance that is

used for collecting and conveying storm water and that is directly related to manufacturing, processing, or raw materials storage areas at an industrial plant.The term does not include discharges from facilities or activities excluded from the national permits program under 40 C.F.R. §122.3 and §122.27 (2000).For the categories of industries identified in this subdivision, the term includes, but is not limited to, all of the following:
(i)Storm water discharges from industrial plant yards.
(ii)Immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility.
(iii)Material handling sites.
(iv)Refuse sites.
(v)Sites used for the application or disposal of process waste waters, as defined at 40 C.F.R. §401.11 (2000).
(vi)Sites used for the storage and maintenance of material handling equipment.
(vii)Sites used for residual treatment, storage, or disposal.
(viii)Shipping and receiving areas.
(ix)Manufacturing buildings.
(x)Storage areas, including tank farms, for raw materials and intermediate and final products.
(xi)Areas where industrial activity has taken place in the past and significant materials remain and are exposed to storm water.
For the purposes of this subdivision, material handling activities include storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product, by-product, or waste product.
The term excludes areas located on plant lands separate from the plant's industrial activities, such as office buildings and accompanying parking lots as long as the drainage from the excluded areas is not mixed with storm water drained from the areas described in this paragraph.Industrial facilities include facilities that are federally, state, or municipally owned or operated that meet the description of the facilities listed in the following paragraphs and those facilities designated by the department under the provisions of R 323.2161(1)(f).The following categories of facilities are considered to be engaging in "industrial activity" for purposes of this subdivision:
(A)Facilities subject to EPA promulgated storm water effluent limitations guidelines, new source performance standards, or toxic pollutant effluent standards, except facilities that have toxic pollutant effluent standards which are exempted under paragraph (x) of this subdivision.
(B)Facilities classified as standard industrial classifications 24, except 2434, 26, except 265 and 267, 28, except 283, 29, 311, 32, except 323, 33, 3441, 373.
(C)Facilities classified as standard industrial classifications 10 through 14, mineral industry, including active or inactive mining operations, except for areas of non-coal mining operations which were released from applicable state or federal reclamation requirements after December 17, 1990, and oil and gas exploration, production, processing, or treatment operations, or transmission facilities that discharge storm water contaminated by contact with or that has come into contact with, any overburden, raw material, intermediate products, finished products, byproducts, or waste products located on the site of operations.Inactive mining operations are mining sites which are not being actively mined, but which have an identifiable owner/operator.Inactive mining sites do not include sites where mining claims are being maintained before disturbances associated with the extraction, beneficiation, or processing of mined materials and do not include sites where minimal activities are undertaken for the sole purpose of maintaining a mining claim.
(D)Hazardous waste treatment, storage, or disposal facilities, including those that are operating under interim status or a permit under subtitle c of the federal resource conservation and recovery act.
(E)Landfills, land application sites, and open dumps that receive or have received any industrial wastes, waste that is received from any of the facilities described under this subdivision, including those that are subject to regulation under subtitle D of the federal resource conservation and recovery act.
(F)Facilities involved in the recycling of materials, including metal scrap yards, battery reclaimers, salvage yards, and automobile junkyards, which are classified as standard industrial classification 5015 and 5093.
(G)Steam electric power generating facilities, including coal handling sites.
(H)Transportation facilities classified as standard industrial classifications 40, 41, 42, except 4221 to 25, 43, 44, 45, and 5171 which have vehicle maintenance shops, equipment cleaning operations, or airport deicing operations.Only those portions of the facility that are either involved in vehicle maintenance, including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication; equipment cleaning operations, airport deicing operations, or which are otherwise identified under paragraphs (i) to (vii), (ix), or (x) of this subdivision

are associated with industrial activity.
(I)Treatment works treating domestic sewage or any other sewage sludge or wastewater treatment device or system, used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated to the disposal of sewage sludge that is located within the confines of the facility, provided the system has a design flow of 1.0 million gallons per day or more, or is required to have an approved federal pretreatment program under 40 C.F.R. part 403 (2000).Not included are farm lands, domestic gardens, or lands used for sludge management where sludge is beneficially reused and which are not physically located in the confines of the facility, or areas that are in compliance with section 405 of the federal act.
(J)Facilities under standard industrial classifications 20, 21, 22, 23, 2434, 25, 265, 267, 27, 283, 285, 30, 31, except 311, 323, 34, except 3441, 35, 36, 37, except 373, 38, 39, and 4221 to 25.
(v)"Total maximum daily load" or "TMDL" means a written, quantitative plan and analysis for attaining and maintaining water quality standards in all seasons for a specific water body and pollutant.
(w)"Trade secret" means the whole or any portion or phase of any manufacturing proprietary process or method which is not patented, which is secret, which is useful in compounding an article of trade that has a commercial value, and the secrecy of which the owner has taken reasonable measures to prevent from becoming available to persons other than those selected by the owner to have access thereto for limited purposes."Trade secret" shall not be construed, for purposes of these rules, to include any information relative to the quantum and character of waste products or their constituents discharged or sought to be discharged into waters of this state.
(x)"Urbanized area" means a place and the adjacent densely populated territory that together have a minimum population of 50,000 people, as defined by the United States bureau of the census and as determined by the latest available decennial census.
(y)"Urbanizing area" means an area of contiguous census blocks with population densities of 1,000 persons or more per square mile that together have a population of 10,000 people or more, as determined by the latest available decennial census.
(z)"Vessel" means any contrivance that is used or capable of being used for navigation upon water, whether or not the contrivance is capable of self-propulsion, including any of the following:
(i)Foreign and domestic vessels that are engaged in commerce upon the waters of the state.
(ii)Passenger or other cargo-carrying vessels.
(iii)Privately owned recreational watercraft.
(iv)Any other floating craft.
(aa)"Waste" means any waste, wastewater, waste effluent, or pollutant that is discharged into water, including any of the following:
(i)Dredged spoil.
(ii)Solid waste.
(iii)Incinerator residue.
(iv)Sewage.
(v)Garbage.
(vi)Sewage sludge.
(vii)Munitions.
(viii)Chemical wastes.
(ix)Biological materials.
(x)Radioactive materials.
(xi)Heat.
(xii)Wrecked or discarded equipment.
(xiii)Rock.
(xiv)Sand.
(xv)Cellar dirt.
(xvi)Industrial, municipal, and agricultural waste.
(bb)"Wastewater" means liquid waste discharges directly or indirectly into the waters of the state that result from industrial and commercial processes and municipal operations, including liquid or water-carried process waste, cooling and condensing waters, and sanitary sewage.
(cc)"Water quality standards" means the part 4 water quality standards promulgated pursuant to part 31 of 1994 PA 451, as amended, being R 323.1041 to 323.1117 of the Michigan administrative code.

History:1954 ACS 77, Eff. Oct. 17, 1973; 1979 AC; 1985 MR 3, Eff. Apr. 11, 1985; 1992 MR 10, Eff. Nov. 13, 1992; 2003 MR 10, Eff. May 15, 2003; 2005 MR 6, Eff. Apr.6, 2005.

R 323.2106
Source: 2003 AACS.

R 323.2108 Permits; application and filing procedures.
Rule 2108.(1)An application for a permit shall be completed in accordance with and subject to guidelines in 40 C.F.R. §122.21(2003).
(2)A person discharging waste or wastewater from more than 1 location shall file a separate application for each discharge location.A single application may be filed for multiple outfalls discharging from a single location, except that the discharge from each outfall shall be described separately in the application.
History:1954 ACS 77, Eff. Oct. 17, 1973; 1979 AC; 2003 MR10,Eff.May 15, 2003; 2005 MR 6, Eff. Apr. 6, 2005.

R 323.2109 Permits; application exemptions.
Rule 2109.A person who discharges or proposes to discharge the following types of waste or wastewater shall not be required to apply for a permit from the department pursuant to part 31 of the act or these rules:
(a)Human sewage that is discharged from vessels.
(b)Water, gas, and other materials that are injected into a well to facilitate the production of oil or gas, or water that is derived in association with oil or gas production and disposed of in a well if authorized by the state supervisor of wells.
(c)A discharge that is directed solely to a publicly owned treatment works, but not from a publicly owned treatment works.
(d)Point source discharges of storm water, unless a person is required to apply for a national permit pursuant to R 323.2161 or R 323.2196.
History:1954 ACS 77, Eff. Oct. 17, 1973; 1979 AC;1992MR10,Eff. Nov. 13, 1992; 2003 MR 10, Eff. May 15, 2003; 2005 MR 6, Eff. Apr. 6, 2005.

R 323.2111.
Source: 2003 AACS.

R 323.2112
Source: 2003 AACS.

R 323.2114
Source: 2003 AACS.

R 323.2115
Source: 2003 AACS.

R 323.2117
Source: 2003 AACS.

R 323.2118
Source: 2003 AACS.

R 323.2119
Source: 2003 AACS.

R 323.2121
Source: 2003 AACS.

R 323.2122
Source: 2003 AACS.

R 323.2124

Source: 2003 AACS.

R 323.2125
Source: 2003 AACS.

R 323.2126
Source: 2003 AACS.

R 323.2127
Source: 2003 AACS.

R 323.2128
Source: 2003 AACS.

R 323.2130
Source: 2003 AACS.

R 323.2131
Source: 2003 AACS.

R 323.2133
Source: 2003 AACS.

R 323.2134
Source: 2003 AACS.

R 323.2136
Source: 2003 AACS.

R 323.2137
Source: 2003 AACS.

R 323.2138
Source: 2003 AACS.

R 323.2139
Source: 2003 AACS.

R 323.2140
Source: 2003 AACS.

R 323.2141
Source: 2003 AACS.

R 323.2142
Source: 2003 AACS.

R 323.2145
Source: 2003 AACS.

R 323.2146
Source: 2003 AACS.

R 323.2147
Source: 2003 AACS.

R 323.2149
Source: 2003 AACS.

R 323.2150
Source: 2003 AACS.

R 323.2151
Source: 2003 AACS.

R 323.2153
Source: 2003 AACS.

R 323.2154
Source: 2003 AACS.

R 323.2155
Source: 2003 AACS.

R 323.2159
Source: 2003 AACS.

R 323.2160
Source: 2003 AACS.

R 323.2161
Source: 2003 AACS.

R 323.2161a
Source: 2003 AACS.

R 323.2162
Source: 1997 AACS.

R 323.2163
Source: 1997 AACS.

R 323.2164
Source: 1997 AACS.

R 323.2165
Source: 1997 AACS.

R 323.2166
Source: 1997 AACS.

R 323.2167
Source: 1997 AACS.

R 323.2168
Source: 1997 AACS.

R 323.2169
Source: 1997 AACS.

R 323.2170
Source: 1997 AACS.

R 323.2172
Source: 1997 AACS.

R 323.2173
Source: 1997 AACS.

R 323.2174
Source: 1997 AACS.

R 323.2175
Source: 1997 AACS.

R 323.2176
Source: 1997 AACS.

R 323.2177
Source: 1997 AACS.

R 323.2178
Source: 1997 AACS.

R 323.2179
Source: 1997 AACS.

R 323.2180
Source: 1997 AACS.

R 323.2181
Source: 1997 AACS.

R 323.2182
Source: 1997 AACS.

R 323.2183
Source: 1997 AACS.

R 323.2184
Source: 1997 AACS.

R 323.2185
Source: 1997 AACS.

R 323.2186
Source: 1997 AACS.

R 323.2189 Referenced federal regulations; definitions; adoption of standards by reference.
Rule 2189.(1)As used in the federal regulations referenced in R 323.2161, the terms "NPDES state" and "NPDES authority" shall mean the department of environmental quality as specified in this rule.
(2)The following federal regulations are adopted by reference in these rules, are available for inspection at the Lansing office of the department of environmental quality, and may be obtained from the Department of Environmental Quality, Water Division, P.O. Box 30273, Lansing, MI 48909, at a cost as of the time of adoption of these rules of 5 cents per page and a labor rate of $19.20 per hour, or from the Superintendent of Documents, Government Printing Office, Washington, DC 20402, at a cost as of the time of the adoption of these rules of $66.00, or via the Internet at http://www.access.gpo.gov/nara:
(a)40 C.F.R. §§122.3(e) (2000).
(b)40 C.F.R. §122.7. (2000).
(c)40 C.F.R. §§122.21 (2003).
(d)40 C.F.R. §122.26 to 27 (2000).
(e)40 C.F.R. §122.28(b)(2)(v) (2000).
(f)40 C.F.R. §122.34 to 35 (2000).

(g)40 C.F.R. §§122.41 to 122.49 (2000).
(h)40 C.F.R. §122, appendix G (2000).
(i)40 C.F.R. §123 et seq. (1984).
(j)40 C.F.R. §401.11 (2000).
(k)40 C.F.R. §403 (2000).
(l)40 C.F.R. §412 (2003) except that the definition for "land application area" shall be as defined in R 323.2103(f).
History:1985 MR 3, Eff. Apr. 11, 1985; 1990 MR 8, Eff.Aug.21, 1990; 1992 MR 10, Eff. Nov. 13, 1992; 1995 MR 8, Eff. Sept. 8, 1995;2003MR10, Eff. May 15, 2003; 2005 MR 6, Eff. Apr. 6, 2005.

R 323.2190
Source: 2003 AACS.

R 323.2191
Source: 2003 AACS.

R 323.2192
Source: 2003 AACS.

R 323.2193
Source: 2003 AACS.

R 323.2194
Source: 1998-2000 AACS.

R 323.2195
Source: 2003 AACS.

R 323.2196CAFO permits.
Rule 2196.(1)CAFOs are point sources that require NPDES permits for discharges or potential discharges and require all of the following:
(a)If an operation becomes a CAFO, then the NPDES requirements for CAFOs apply to all animals in confinement at the operation and all production area waste and CAFO process wastewater generated by those animals or the production of those animals, regardless of the type of animal.
(b)All CAFO owners or operators shall apply either for an individual NPDES permit, or a certificate of coverage under an NPDES general permit, unless the owner or operator has received a determination from the department, made after providing notice and opportunity for public comment, that the CAFO has "no potential to discharge" pursuant to subrule (4) of this rule.
(c)The discharge to waters of the state from land application areas is a discharge from the CAFO subject to NPDES permit requirements.
(2)The schedule for permit application, coverage, and renewal shall include all of the following:
(a)A CAFO shall apply for an NPDES permit not later than the effective date of these rules, except as specified in subdivisions (b), (d), or (e) of this subrule.
(b)An existing CAFO, or an existing AFO that becomes a CAFO, that has not had a regulated discharge since January 14, 2000, shall apply for coverage under NPDES general permit no. MIG440000 (effective January 1, 2003), or equivalent document approved by the department, not later than 90 days after notification by the department or by September 1, 2005, whichever is sooner.Before July 1, 2007, all CAFOs that are operating under an equivalent document approved by the department shall apply for an NPDES permit.An existing CAFO or existing AFO is any CAFO or AFO that is constructed and populated before January 30, 2004.
(c)For the purposes of subdivision (b) of this subrule, a regulated discharge is any of the following:
(i)A discharge that causes or contributes to a violation of R 323.1041 to R 323.1117 of the water quality standards.
(ii)A discharge from the process or production area due to precipitation events, either by overland, drainage tiles, or other mechanisms, except the discharge of uncontaminated runoff that does not come into contact with any animals, animal waste, or production area waste.
(iii)A dry-weather discharge, including an accidental release.
(d)Newly constructed CAFOs shall apply for an NPDES permit at least 180 days before commencing operation.

(e)AFOs that become CAFOs after September 1, 2005, shall apply for an NPDES permit at least 180 days before becoming a CAFO.
(f)For AFOs that are designated as CAFOs per subrule (3), the CAFO shall apply for an NPDES permit no later than 90 days after receiving notification of the designation.
(g)Not later than 180 days before the expiration of the permit or equivalent document approved by the department, the permittee shall submit an application to renew its permit.However, the permittee need not continue to seek continued permit coverage or reapply for a permit if both of the following conditions are true:
(i)The facility has ceased operation or is no longer a CAFO.
(ii)The permittee has demonstrated to the satisfaction of the department that there is no remaining potential for a discharge.
(3)In designating an AFO as a CAFO, the following apply:
(a)The department may designate any AFO as a CAFO upon determining that it is a significant contributor of pollutants to waters of the state.In making this designation, the department shall consider all of the following factors:
(i)The size of the AFO and the amount of production area waste and CAFO process wastewater reaching waters of the state.
(ii)The location of the AFO relative to waters of the state.
(iii)The means of conveyance of production area waste and CAFO process wastewater into waters of the state.
(iv)The slope, vegetation, rainfall, and other factors affecting the likelihood or frequency of discharge of production area waste and CAFO process wastewater into waters of the state.
(v)Other relevant factors.
(b)An AFO shall not be designated under this subrule unless the department has conducted an inspection of the operation.
(c)An AFO with numbers of animals below those established in R 323.2103(m) shall not be designated as a CAFO unless either of the following occurs:
(i)Pollutants are discharged from the production area into waters of the state through a manmade ditch, pipe, tile, swale, flushing system, or other similar manmade conveyance.
(ii)Pollutants are discharged from the production area directly into waters of the state which originate outside of the facility and pass over, across, or through the facility or otherwise come into direct contact with the animals confined in the operation.
(4)In making determinations for no potential to discharge for large CAFOs, all of the following apply:
(a)The department, upon request, may make a determination that a specific large CAFO has no potential to discharge pollutants to waters of the state.In making this determination, the department shall consider the potential for discharges from both the production area and any land application areas.The department shall also consider any record of prior discharges by the CAFO.In no case may the CAFO be determined to have no potential to discharge if it has had a discharge within 5 years before the date of the request submitted under subdivision (b) of this subrule.For purposes of this rule, the term ‘no potential to discharge’ means that there is no potential for any CAFO production area waste or CAFO process wastewater to be added to waters of the state under any circumstance or climatic condition.A determination that there is no potential to discharge only relates to discharges of production area waste and CAFO process wastewater covered by this rule.
(b)In requesting a determination of no potential to discharge, the CAFO owner or operator shall submit any information that will support such a determination.Such information shall include all of the information specified in 40 C.F.R. §§122.21(f) and (i)(1)(i) to (ix) (2003) and include documentation showing that the CAFO has been verified under the livestock system of the Michigan agriculture environmental assurance program (MAEAP), or successor program, if such a program is available. The department has discretion to require additional information to supplement the request, and may also gather additional information through physical inspection of the CAFO.
(c)Before making a final decision to grant a no potential to discharge determination, the department shall issue a notice to the public stating that a no potential to discharge request has been received.This notice shall be accompanied by a fact sheet which includes the following, if applicable:
(i)A brief description of the type of facility or activity which is the subject of the no potential to discharge determination.
(ii)A brief summary of the factual basis, upon which the request is based, for granting the no potential to discharge determination.
(iii)A description of the procedures for reaching a final decision on the no potential to discharge determination.
The department shall base the decision to grant a no potential to discharge determination on the administrative

record, which includes all information submitted in support of or against a no potential to discharge determination and any other data gathered by the department.The department shall notify any CAFO seeking a no potential to discharge determination of its final determination within 180 days of receiving the request.
(d)The owner or operator shall request a no potential to discharge determination by the applicable permit application dates.If the department's final decision is to deny the no potential to discharge determination, then the owner or operator shall seek coverage under a permit within 30 days after notice of the denial.
(e)The no potential to discharge determination does not relieve the CAFO from the consequences of an actual discharge.Any unpermitted CAFO that discharges pollutants into the waters of this state is in violation of the act even if it has received a no potential to discharge determination from the department.Any CAFO that has received a determination of no potential to discharge, but who anticipates changes in circumstances that could create the potential for a discharge, shall contact the department and apply for and obtain NPDES permit authorization prior to the change of circumstances.If any CAFO that has received a determination of no potential to discharge has unanticipated changes in circumstances that could create the potential for a discharge, then the CAFO shall immediately notify the department and submit a complete application for coverage under an NPDES permit within 30 days after the change in circumstances.
(f)Where the department has issued a determination of no potential to discharge, the department retains the authority to subsequently require NPDES permit coverage for any of the following:
(i)If circumstances at the facility change.
(ii)If new information becomes available.
(iii)If there is another reason for the department to determine that the CAFO has a potential to discharge.
(g)Notwithstanding any other provision of this section, a CAFO that has received a no potential to discharge determination from the department is not required to seek coverage under an NPDES permit that would otherwise be required.
(5)CAFO NPDES permits shall include all of the following:
(a)A requirement to develop and implement a comprehensive nutrient management plan (CNMP).The CNMP shall be approved by a certified CNMP provider.At a minimum, a CNMP shall include best management practices and procedures necessary to implement applicable effluent limitations and technical standards established by the department including all of the following:
(i)Ensure adequate storage of production area waste and CAFO process wastewater, including procedures to ensure proper operation and maintenance of the storage facilities.
(ii)Ensure proper management of mortalities and ensure that they are not disposed of in a liquid manure, storm water, or CAFO process wastewater storage or treatment system.
(iii)Ensure clean water is diverted from the production area.
(iv)Prevent direct contact of confined animals with waters of the state.
(v)Ensure chemicals and other contaminants handled at the CAFO, that are not part of the normal agricultural practice at the production area, are not disposed of in any production area waste, CAFO process wastewater, or storm water storage or treatment system.
(vi)Identify specific conservation practices to control runoff of pollutants to waters of the state.
(vii)Identify protocols for testing of production area waste, CAFO process wastewater, and soil.
(viii)Conduct a field-by-field assessment of land application areas and address the form, source, amount, timing, rate, and method of application of nutrients to demonstrate that land application of production area waste or CAFO process wastewater is in accordance with field-specific nutrient management practices that ensures proper agricultural utilization of the nutrients in the production area waste or CAFO process wastewater.The assessment shall take into account field-specific conditions including locations of tile outlets, tile risers, and tile depth before land application to determine suitability of land application and to prevent discharge of any potential polluting material.
(ix)Ensure proper land application by complying with all of the following conditions:
(A)Production area waste and CAFO process wastewater shall not be land-applied on ground that is flooded, saturated with water, frozen, or snow-covered where the production area waste and CAFO process wastewater may enter waters of the state.
(B)Production area waste and CAFO process wastewater shall not be applied to frozen or snow-covered ground unless it is subsurface injected and there is substantial soil coverage of the applied production area waste and CAFO process wastewater, or it is surface-applied and incorporated within 24 hours.
(C)Production area waste and CAFO process wastewater may be surface-applied to frozen or snow-covered ground and not incorporated within 24 hours only if there is a field-by-field demonstration in the CNMP showing that such land application will not result in a situation where

production area waste and CAFO process wastewater may enter waters of the state.
(D)Production area waste and CAFO process wastewater shall not be applied when precipitation exceeding ½ inch is forecast within 24 hours or if precipitation is forecast that may cause the production area waste and CAFO process wastewater to enter waters of the state.
(E)On ground that is not frozen or snow-covered, production area waste and CAFO process wastewater, if not subsurface-injected, shall be incorporated into the soil within 24 hours of application except on no-till fields.
(x)Identify specific records that will be maintained to document the implementation and management of the CNMP.
(b)A copy of the CAFO's CNMP shall be maintained at the CAFO and made available to the department on request.In addition, the executive summary shall be submitted to the department.
(c)A prohibition on dry weather discharges from the CAFO except in accordance with 40 C.F.R. §412.31(a)(2) (2003) or 40 C.F.R. §412.46(d) (2003).
(d)Storm water discharges from land areas under the control of a CAFO where production area waste or CAFO process wastewater has been applied in compliance with field-specific nutrient management practices developed in accordance with R 323.2196(5)(a), and such discharges do not cause or contribute to a violation of water quality standards, are in compliance with this rule, provided such discharges are authorized by an NPDES permit.
(e)Unless the department determines otherwise, in cases where production area waste or CAFO process wastewater is sold, given away, or otherwise transferred to other persons (recipient) and the land application of that production area waste or CAFO process wastewater is not under the operational control of the CAFO owner or operator that generates the production area waste or CAFO process wastewater (generator), a manifest shall be used to track the transfer and use of the production area waste or CAFO process wastewater.
(i)The CAFO owner or operator shall do all of the following:
(A)Prepare a manifest for tracking the production area waste or CAFO process wastewater before transferring the production area waste or CAFO process wastewater.
(B)Designate on the manifest the recipient of the production area waste or CAFO process wastewater.
(ii)The generator shall use a manifest form which is approved by the department and which has locations for recording all of the following information:
(A)A manifest document number.
(B)The generator's name, mailing address, and telephone number.
(C)The name and address of the recipient of the production area waste or CAFO process wastewater.
(D)The nutrient content of the production area waste or CAFO process wastewater to be used in determining the appropriate land application rates.
(E)The total quantity of production area waste or CAFO process wastewater by units of weight or volume and the number and size of the loads or containers used to transfer that quantity of production area waste or CAFO process wastewater.
(F)A statement that informs the recipient of his or her responsibility to properly manage the land application of the manure and/or wastewater to minimize the discharge of pollutants to waters of the state.
(G)The following certification:"I hereby declare that the production area waste or CAFO process wastewater is accurately described above and is suitable for land application."
(H)Other certification statements as may be required by the department.
(I)Address or other description for the final destination of the production area waste or CAFO process wastewater.
(J)Locations for dates and signatures.
(iii)The generator shall do all of the following with respect to the manifest:
(A)Sign the manifest certification by hand.
(B)Obtain the handwritten signature of the recipient and the date of acceptance on the manifest.
(C)Retain 1 copy of the manifest.
(D)Give the remaining copies to the recipient.
(E)Advise the recipient of his or her responsibilities to complete the manifest and return a copy to the generator within 30 days after completion of the land application or other disposal or use of the production area waste or CAFO process wastewater.
(iv)One manifest may be used for multiple loads or containers of the same production area waste or CAFO process wastewater transferred to the same recipient.
(v)The generator shall not sell, give away, or otherwise transfer production area waste or CAFO process

wastewater to a recipient if any of the following occurs:
(A)The recipient has previously not returned a copy of the completed manifest to the generator.
(B)The returned manifest indicates improper land application, use, or disposal.
(C)The generator has been advised by the department that the department or a court of appropriate jurisdiction has determined that the recipient has improperly land-applied, used, or disposed of a manifested production area waste or CAFO process wastewater.
(D)The recipient fails or refuses to provide accurate information on the manifest in a timely manner.
(vi)If the generator has been prohibited from selling, giving, or otherwise transferring large CAFO waste to a particular recipient under paragraph (v), above, and the generator wishes to resume selling, giving, or otherwise transferring large CAFO waste to that particular recipient, then the one of the following shall be accomplished:
(A)For improper paperwork only, such as incomplete or inaccurate information on the manifest, the recipient must provide the correct, complete information.
(B)For improper land application, use, or disposal of the large CAFO waste by the recipient, the generator must demonstrate, in writing, to the department that the improper land application, use, or disposal has been corrected, and the department has provided approval of the demonstration.
(vii)All copies of manifests shall be kept with the CAFO owner or operator's CNMP for a minimum of 5 years.
(viii)The requirements of this rule do not apply to quantities of production area waste or CAFO process wastewater less than 1 pick-up truck load, 1 cubic yard, or 1 ton per recipient per day.
(f)A requirement that the CAFO owner or operator shall submit annual reports to the department.The annual report shall include, but is not limited to, all of the following:
(i)The number and type of animals, whether in open confinement or housed under roof (beef cattle, broilers, layers, swine weighing 55 pounds or more, swine weighing less than 55 pounds, mature dairy cows, dairy heifers, veal calves, sheep and lambs, horses, ducks, and turkeys).
(ii)Estimated amount of total production area waste and CAFO process wastewater generated by the CAFO in the previous 12 months (tons/gallons).
(iii)Estimated amount of total production area waste and CAFO process wastewater transferred to another person by the CAFO in the previous 12 months (tons/gallons).
(iv)Total number of acres for land application covered by the CNMP developed in accordance with subdivision (a) of this subrule.
(v)Total number of acres under control of the CAFO that were used for land application of production area waste and CAFO process wastewater in the previous 12 months.
(vi)Summary of all production area waste and CAFO process wastewater discharges from the production area that have occurred in the previous 12 months, including date, time, and approximate volume.
A statement indicating whether the current version of the CAFO's CNMP was developed or approved by a certified CNMP provider.
History: 2005 MR 6, Eff. Apr. 6, 2005.

PART 22. GROUNDWATER QUALITY

R 323.2201
Source: 1998-2000 AACS.

R 323.2202
Source: 1998-2000 AACS.

R 323.2203
Source: 1998-2000 AACS.

R 323.2204
Source: 1998-2000 AACS.

R 323.2205
Source: 1998-2000 AACS.

R 323.2206

Source: 1998-2000 AACS.

R 323.2207
Source: 1998-2000 AACS.

R 323.2208
Source: 1998-2000 AACS.

R 323.2209
Source: 1998-2000 AACS.

R 323.2210
Source: 1998-2000 AACS.

R 323.2211
Source: 1998-2000 AACS.

R 323.2212
Source: 1998-2000 AACS.

R 323.
Source: 1998-2000 AACS.

R 323.2214
Source: 1998-2000 AACS.

R 323.2215
Source: 1998-2000 AACS.

R 323.2216
Source: 1998-2000 AACS.

R 323.2217
Source: 1998-2000 AACS.

R 323.2218
Source: 1998-2000 AACS.

R 323.2219
Source: 1998-2000 AACS.

R 323.2220
Source: 1998-2000 AACS.

R 323.2221
Source: 1998-2000 AACS.

R 323.2222
Source: 1998-2000 AACS.

R 323.2223
Source: 1998-2000 AACS.

R 323.2224
Source: 1998-2000 AACS.

R 323.2225
Source: 1998-2000 AACS.

R 323.2226
Source: 1998-2000 AACS.

R 323.2227
Source: 1998-2000 AACS.

R 323.2229
Source: 1998-2000 AACS.

R 323.2230
Source: 1998-2000 AACS.

R 323.2231
Source: 1998-2000 AACS.

R 323.2232
Source: 1998-2000 AACS.

R 323.2233
Source: 1998-2000 AACS.

R 323.2234
Source: 1998-2000 AACS.

R 323.2235
Source: 1998-2000 AACS.

R 323.2237
Source: 1998-2000 AACS.

R 323.2238
Source: 1998-2000 AACS.

R 323.2240
Source: 1998-2000 AACS.

PART 23. PRETREATMENT

R 323.2301
Source: 1995 AACS.

R 323.2302
Source: 1995 AACS.

R 323.2303
Source: 1995 AACS.

R 323.2304
Source: 1995 AACS.

R 323.2305
Source: 1995 AACS.

R 323.2306
Source: 1995 AACS.

R 323.2307
Source: 1995 AACS.

R 323.2308
Source: 1995 AACS.

R 323.2309
Source: 1995 AACS.

R 323.2310
Source: 1995 AACS.

R 323.2311
Source: 1995 AACS.

R 323.2312
Source: 1995 AACS.

R 323.2313
Source: 1995 AACS.

R 323.2314
Source: 1995 AACS.

R 323.2315
Source: 1995 AACS.

R 323.2316
Source: 1995 AACS.

R 323.2317
Source: 1995 AACS.

DEPARTMENT OF ENVIRONMENTAL QUALITY

SURFACE WATER QUALITY DIVISION

WATER RESOURCES PROTECTION

PART 24. LAND APPLICATION OF BIOSOLIDS

R 323.2401
Source: 1998-2000 AACS.

R 323.2402
Source: 1998-2000 AACS.

R 323.2403
Source: 1998-2000 AACS.

R 323.2404
Source: 1998-2000 AACS.

R 323.2405
Source: 1998-2000 AACS.

R 323.2406
Source: 1998-2000 AACS.

R 323.2407
Source: 1998-2000 AACS.

R 323.2408
Source: 1998-2000 AACS.

R 323.2409
Source: 1998-2000 AACS.

R 323.2410
Source: 1998-2000 AACS.

R 323.2411
Source: 1998-2000 AACS.

R 323.2412
Source: 1998-2000 AACS.

R 323.2413
Source: 1998-2000 AACS.

R 323.2414
Source: 1998-2000 AACS.

R 323.2415
Source: 1998-2000 AACS.

R 323.2416
Source: 1998-2000 AACS.

R 323.2417
Source: 1998-2000 AACS.

R 323.2418
Source: 1998-2000 AACS.

SURFACE WATER QUALITY DIVISION

WATER RESOURCES PROTECTION

PART 30. WATER QUALITY TRADING

R 323.3001
Source: 2002 AACS.

R 323.3002
Source: 2002 AACS.

R 323.3003
Source: 2002 AACS.

R 323.3004
Source: 2002 AACS.

R 323.3005
Source: 2002 AACS.

R 323.3006
Source: 2002 AACS.

R 323.3007
Source: 2002 AACS.

R 323.3008
Source: 2002 AACS.

R 323.3009
Source: 2002 AACS.

R 323.3010
Source: 2002 AACS.

R 323.3012
Source: 2002 AACS.

R 323.3013
Source: 2002 AACS.

R 323.3014
Source: 2002 AACS.

R 323.3015
Source: 2002 AACS.

R 323.3016
Source: 2002 AACS.

R 323.3017
Source: 2002 AACS.

R 323.3018
Source: 2002 AACS.

R 323.3019
Source: 2002 AACS.

R 323.3020
Source: 2002 AACS.

R 323.3021
Source: 2002 AACS.

R 323.3022
Source: 2002 AACS.

R 323.3023
Source: 2002 AACS.

R 323.3024
Source: 2002 AACS.

R 323.3025
Source: 2002 AACS.

R 323.3026
Source: 2002 AACS.

R 323.3027
Source: 2002 AACS.

DEPARTMENT OF ENVIRONMENTAL QUALITY

LAND AND WATER MANAGEMENT DIVISION

INLAND LAKES AND WETLANDS UNIT

AQUATIC NUISANCE CONTROL

R 323.3101
Source: 2003 AACS.

R 323.3102
Source: 2003 AACS.

R 323.3103
Source: 2003 AACS.

R 323.3104
Source: 2003 AACS.

R 323.3105
Source: 2003 AACS.

R 323.3106
Source: 2003 AACS.

R 323.3107
Source: 2003 AACS.

R 323.3108
Source: 2003 AACS.

R 323.3109
Source: 2003 AACS.

R 323.3110
Source: 2003 AACS.

DEPARTMENT OF ENVIRONMENTAL QUALITY

OFFICE OF ADMINISTRATIVE HEARINGS

CONTESTED CASE AND DECLARATORY RULING PROCEDURES

PART l. GENERAL PROVISIONS

R 324.1
Source: 2003 AACS.

R 324.2
Source: 2003 AACS.

R 324.3
Source: 2003 AACS.

PART 2. COMMENCEMENT OF CONTESTED CASE PROCEEDING

R 324.21
Source: 2003 AACS.

Source: 2003 AACS.

R 324.23
Source: 2003 AACS.

R 324.24
Source: 2003 AACS.

PART 3. FINAL DECISION MAKER AND ADMINISTRATIVE LAW JUDGES

R 324.31
Source: 2003 AACS.

R 324.32
Source: 2003 AACS.

R 324.33
Source: 2003 AACS.

PART 4. PREHEARING CONFERENCES

R 324.41
Source: 2003 AACS.

R 324.42
Source: 2003 AACS.

R 324.43
Source: 2003 AACS.

PART 5. PREHEARING MATTERS

R 324.51
Source: 2003 AACS.

R 324.52
Source: 2003 AACS.

R 324.53
Source: 2003 AACS.

R 324.54
Source: 2003 AACS.

R 324.55
Source: 2003 AACS.

R 324.56
Source: 2003 AACS.

R 324.57
Source: 2003 AACS.

R 325.58
Source: 2003 AACS.

R 324.59
Source: 2003 AACS.

R 324.59a
Source: 2003 AACS.

R 324.59b
Source: 2003 AACS.

R 324.59c
Source: 2003 AACS.

R 324.59d
Source: 2003 AACS.

R 324.59e
Source: 2003 AACS.

PART 6. HEARINGS

R 324.61
Source: 2003 AACS.

R 324.62
Source: 2003 AACS.

R 324.63
Source: 2003 AACS.

R 324.64
Source: 2003 AACS.

R 324.65
Source: 2003 AACS.

PART 7. DECISION PROCESS

R 324.71
Source: 2003 AACS.

R 324.72
Source: 2003 AACS.

R 324.73
Source: 2003 AACS.

R 324.74
Source: 2003 AACS.

R 324.75
Source: 2003 AACS.

PART 8. DECLARATORY RULINGS

R 324.81
Source: 2003 AACS.

GEOLOGICAL SURVEY DIVISION

OIL AND GAS OPERATIONS

PART 1. GENERAL PROVISIONS

R 324.101
Source: 1996 AACS.

R 324.102
Source: 2002 AACS.

R 324.103
Source: 2002 AACS.

R 324.104
Source: 1996 AACS.

R 324.199
Source: 1996 AACS.

PART 2. PERMITS TO DRILL AND OPERATE

R 324.201
Source: 1996 AACS.

R 324.202
Source: 2002 AACS.

R 324.203
Source: 2002 AACS.

R 324.204
Source: 1996 AACS.

R 324.205
Source: 1996 AACS.

R 324.206
Source: 1996 AACS.

R 324.207
Source: 2002 AACS.

R 324.208
Source: 1996 AACS.

R 324.209
Source: 1996 AACS.

R 324.210

Source: 2002 AACS.

R 324.211
Source: 2002 AACS.

R 324.212
Source: 1996 AACS.

R 324.213
Source: 2002 AACS.

R 324.214
Source: 1996 AACS.

R 324.215
Source: 1996 AACS.

R 324.216
Source: 1996 AACS.

PART 3. SPACING AND LOCATION OF WELLS

R 324.301
Source: 1996 AACS.

R 324.302
Source: 1996 AACS.

R 324.303
Source: 1996 AACS.

R 324.304
Source: 1996 AACS.

PART 4. DRILLING AND WELL CONSTRUCTION

R 324.401
Source: 1996 AACS.

R 324.402
Source: 1996 AACS.

R 324.403
Source: 1996 AACS.

R 324.404
Source: 1996 AACS.

R 324.405
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R 324.406
Source: 1996 AACS.

R 324.407
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R 324.408

Source: 1996 AACS.

R 324.409
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R 324.410
Source: 1996 AACS.

R 324.411
Source: 1996 AACS.

R 324.412
Source: 1996 AACS.

R 324.413
Source: 1996 AACS.

R 324.414
Source: 1996 AACS.

R 324.415
Source: 1996 AACS.

R 324.416
Source: 2001 AACS.

R 324.417
Source: 1996 AACS.

R 324.418
Source: 1996 AACS.

R 324.419
Source: 1996 AACS.

R 324.420
Source: 1996 AACS.

R 324.421
Source: 1996 AACS.

R 324.422
Source: 1996 AACS.

PART 5. COMPLETION AND OPERATION

R 324.501
Source: 2002 AACS.

R 324.502
Source: 1996 AACS.

R 324.503
Source: 1996 AACS.

R 324.504
Source: 2002 AACS.

R 324.505
Source: 1996 AACS.

R 324.506
Source: 1996 AACS.

R 324.507
Source: 1996 AACS.

R 324.508
Source: 1996 AACS.

R 324.509
Source: 1996 AACS.

R 324.510
Source: 1996 AACS.

R 324.511
Source: 2002 AACS.

PART 6. PRODUCTION AND PRORATION

R 324.601
Source: 1996 AACS.

R 324.602
Source: 1996 AACS.

R 324.603
Source: 1996 AACS.

R 324.604
Source: 1996 AACS.

R 324.605
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R 324.606
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R 324.607
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R 324.608
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R 324.609
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R 324.610
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R 324.611
Source: 1996 AACS.

R 324.612
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R 324.613
Source: 1996 AACS.

PART 7. DISPOSAL OF OIL OR GAS FIELD WASTE, OR BOTH

R 324.701
Source: 1996 AACS.

R 324.702
Source: 1996 AACS.

R 324.703
Source: 1996 AACS.

R 324.704
Source: 1996 AACS.

R 324.705
Source: 1996 AACS.

PART 8. INJECTION WELLS

R 324.801
Source: 1996 AACS.

R 324.802
Source: 1996 AACS.

R 324.803
Source: 1996 AACS.

R 324.804
Source: 1996 AACS.

R 324.805
Source: 1996 AACS.

R 324.806
Source: 1996 AACS.

R 324.807
Source: 1996 AACS.

R 324.808
Source: 1996 AACS.

PART 9. PLUGGING

R 324.901
Source: 1996 AACS.

R 324.902
Source: 1996 AACS.

R 324.903
Source: 1996 AACS.

R 324.904

Source: 1996 AACS.

PART 10. WELL SITES AND SURFACE FACILITIES; PREVENTION OF FIRES, POLLUTION, AND DANGER TO, OR DESTRUCTION OF, PROPERTY OR LIFE

R 324.1001
Source: 1996 AACS.

R 324.1002
Source: 1996 AACS.

R 324.1003
Source: 1996 AACS.

R 324.1004
Source: 1996 AACS.

R 324.1005
Source: 1996 AACS.

R 324.1006
Source: 1996 AACS.

R 324.1007
Source: 1996 AACS.

R 324.1008
Source: 2001 AACS.

R 324.1009
Source: 1996 AACS.

R 324.1010
Source: 1996 AACS.

R 324.1011
Source: 1996 AACS.

R 324.1008
Source: 2001 AACS.

R 324.1012
Source: 1996 AACS.

R 324.1014
Source: 2002 AACS.

R 324.1015
Source: 1996 AACS.

R 324.1016
Source: 1996 AACS.

PART 11. HYDROGEN SULFIDE MANAGEMENT

R 324.1101
Source: 1996 AACS.

R 324.1102
Source: 1996 AACS.

R 324.1103
Source: 2001 AACS.

R 324.1104
Source: 1996 AACS.

R 324.1105
Source: 2001 AACS.

R 324.1106
Source: 1996 AACS.

R 324.1107
Source: 2002 AACS.

R 324.1108
Source: 1996 AACS.

R 324.1109
Source: 1996 AACS.

R 324.1110
Source: 2001 AACS.

R 324.1111
Source: 1996 AACS.

R 324.1112
Source: 1996 AACS.

R 324.1113
Source: 2001 AACS.

R 324.1114
Source: 1996 AACS.

R 324.1115
Source: 1996 AACS.

R 324.1116
Source: 1996 AACS.

R 324.1117
Source: 1996 AACS.

R 324.1118
Source: 1996 AACS.

R 324.1119
Source: 1996 AACS.

R 324.1120
Source: 1996 AACS.

R 324.1121

Source: 1996 AACS.

R 324.1122
Source: 2002 AACS.

R 324.1123
Source: 2002 AACS.

R 324.1124
Source: 1996 AACS.

R 324.1125
Source: 2001 AACS.

R 324.1126
Source: 1996 AACS.

R 324.1127
Source: 1996 AACS.

R 324.1128
Source: 1996 AACS.

R 324.1129
Source: 2001 AACS.

R 324.1130
Source: 2001 AACS.

PART 12. HEARINGS

R 324.1201
Source: 1996 AACS.

R 324.1202
Source: 1996 AACS.

R 324.1203
Source: 1996 AACS.

R 324.1204
Source: 1996 AACS.

R 324.1205
Source: 1996 AACS.

R 324.1206
Source: 1996 AACS.

R 324.1207
Source: 1996 AACS.

R 324.1208
Source: 1996 AACS.

R 324.1209
Source: 1996 AACS.

R 324.1210
Source: 1996 AACS.

R 324.1211
Source: 1996 AACS.

R 324.1212
Source: 1996 AACS.

PART 13. ENFORCEMENT

R 324.1301
Source: 2002 AACS.

DEPARTMENT OF ENVIRONMENTAL QUALITY

ENVIRONMENTAL ASSISTANCE DIVISION

CLEAN CORPORATE CITIZEN PROGRAM

R 324.1501
Source: 1998-2000 AACS.

R 324.1502
Source: 1998-2000 AACS.

R 324.1503
Source: 1998-2000 AACS.

R 324.1504
Source: 1998-2000 AACS.

R 324.1505
Source: 1998-2000 AACS.

R 324.1506
Source: 1998-2000 AACS.

R 324.1507
Source: 1998-2000 AACS.

R 324.1508
Source: 1998-2000 AACS.

R 324.1509.
Source: 1998-2000 AACS.

R 324.1510
Source: 1998-2000 AACS.

R 324.1511
Source: 1998-2000 AACS.

WASTE MANAGEMENT DIVISION

PART 5. SPILLAGE OF OIL AND POLLUTION MATERIALS

R 324.2001
Source: 2001 AACS.

R 324.2002
Source: 2001 AACS.

R 324.2003
Source: 2001 AACS.

R 324.2004
Source: 2001 AACS.

R 324.2005
Source: 2001 AACS.

R 324.2006
Source: 2001 AACS.

R 324.2007
Source: 2001 AACS.

R 324.2008
Source: 2001 AACS.

R 324.2009
Source: 2001 AACS.

DEPARTMENT OF ENVIRONMENTAL QUALITY

SURFACE WATER QUALITY DIVISION

CLEAN MICHIGAN INITIATIVE NONPOINT SOURCE POLLUTION CONTROL GRANTS

R 324.8801
Source: 1998-2000 AACS.

R 324.8802
Source: 1998-2000 AACS.

R 324.8803
Source: 1998-2000 AACS.

R 324.8804
Source: 1998-2000 AACS.

R 324.8805
Source: 1998-2000 AACS.

R 324.8806
Source: 1998-2000 AACS.

R 324.8807
Source: 1998-2000 AACS.

R 324.8808
Source: 1998-2000 AACS.

R 324.8809
Source: 1998-2000 AACS.

R 324.8810
Source: 1998-2000 AACS.

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

SURFACE WATER QUALITY DIVISION

CLEAN WATER FUND

R 324.8901
Source: 1998-2000 AACS.

R 324.8902
Source: 1998-2000 AACS.

R 324.8903
Source: 1998-2000 AACS.

R 324.8904
Source: 1998-2000 AACS.

R 324.8905
Source: 1998-2000 AACS.

R 324.8906
Source: 1998-2000 AACS.

R 324.8907
Source: 1998-2000 AACS.

R 324.8908
Source: 1998-2000 AACS.

R 324.8909
Source: 1998-2000 AACS.

R 324.8910
Source: 1998-2000 AACS.

R 324.8911
Source: 1998-2000 AACS.

R 324.8912
Source: 1998-2000 AACS.

R 324.8913
Source: 1998-2000 AACS.

R 324.8914
Source: 1998-2000 AACS.

R 324.8915
Source: 2001 AACS.

R 324.8916
Source: 1998-2000 AACS.

R 324.8917
Source: 1998-2000 AACS.

R 324.8918
Source: 1998-2000 AACS.

R 324.8919
Source: 1998-2000 AACS.

R 324.8920
Source: 1998-2000 AACS.

DEPARTMENT OF ENVIRONMENTAL QUALITY

ENVIRONMENTAL ASSISTANCE DIVISION

SMALL BUSINESS POLLUTION PREVENTION ASSISTANCE LOAN

R 324.14501
Source: 1998-2000 AACS.

R 324.14502
Source: 1998-2000 AACS.

R 324.14503
Source: 1998-2000 AACS.

R 324.14504
Source: 1998-2000 AACS.

R 324.14505
Source: 1998-2000 AACS.

R 324.14506
Source: 1998-2000 AACS.

R 324.14507
Source: 1998-2000 AACS.

R 324.14508
Source: 1998-2000 AACS.

DEPARTMENT OF ENVIRONMENTAL QUALITY

STORAGE TANK DIVISION

MICHIGAN UNDERGROUND STORAGE TANK QUALIFIED CONSULTANTS AND CERTIFIED PROFESSIONALS

R 324.21501
Source: 1998-2000 AACS.

R 324.21502
Source: 1998-2000 AACS.

R 324.21503
Source: 1998-2000 AACS.

R 324.21504
Source: 1998-2000 AACS.

R 324.21505
Source: 1998-2000 AACS.

R 324.21506
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R 324.21507
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R 324.21508
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R 324.21509
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R 324.21510
Source: 1998-2000 AACS.

R 324.21511
Source: 1998-2000 AACS.

R 324.21512
Source: 1998-2000 AACS.

R 324.21513
Source: 1998-2000 AACS.

R 324.21514
Source: 1998-2000 AACS.

R 324.21515
Source: 1998-2000 AACS.

R 324.21516
Source: 1998-2000 AACS.

DEPARTMENT OF COMMUNITY HEALTH

BUREAU OF DISEASE CONTROL AND LABORATORY SERVICES

CONTROL OF COMMUNICABLE DISEASES

R 325.1
Source: 1998-2000 AACS.

R 325.2
Source: 1998-2000 AACS.

R 325.3
Source: 1998-2000 AACS.

R 325.4
Source: 1998-2000 AACS.

R 325.5
Source: 1998-2000 AACS.

R 325.6
Source: 1998-2000 AACS.

R 325.7
Source: 1998-2000 AACS.

R 325.8
Source: 1998-2000 AACS.

R 325.9
Source: 1998-2000 AACS.

R 325.10
Source: 1998-2000 AACS.

R 325.11
Source: 1998-2000 AACS.

R 325.12
Source: 1998-2000 AACS.

R 325.13
Source: 1998-2000 AACS.

R 325.14
Source: 1998-2000 AACS.

R 325.15
Source: 1998-2000 AACS.

R 325.16
Source: 1998-2000 AACS.

R 325.17
Source: 1998-2000 AACS.

R 325.18
Source: 1998-2000 AACS.

R 325.19
Source: 1998-2000 AACS.

R 325.20
Source: 1998-2000 AACS.

R 325.21
Source: 1998-2000 AACS.

R 325.22
Source: 1998-2000 AACS.

R 325.23
Source: 1998-2000 AACS.

R 325.24
Source: 1998-2000 AACS.

R 325.25
Source: 1998-2000 AACS.

R 325.26
Source: 1998-2000 AACS.

R 325.27
Source: 1998-2000 AACS.

R 325.28
Source: 1998-2000 AACS.

R 325.29
Source: 1998-2000 AACS.

R 325.30
Source: 1998-2000 AACS.

R 325.31
Source: 1998-2000 AACS.

R 325.32
Source: 1998-2000 AACS.

R 325.33
Source: 1998-2000 AACS.

R 325.34
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R 325.35
Source: 1998-2000 AACS.

R 325.36
Source: 1998-2000 AACS.

R 325.37
Source: 1998-2000 AACS.

R 325.38
Source: 1998-2000 AACS.

R 325.39
Source: 1998-2000 AACS.

R 325.40
Source: 1998-2000 AACS.

R 325.41

Source: 1998-2000 AACS.

R 325.42
Source: 1998-2000 AACS.

R 325.43
Source: 1998-2000 AACS.

R 325.44
Source: 1998-2000 AACS.

R 325.45
Source: 1998-2000 AACS.

R 325.46
Source: 1998-2000 AACS.

R 325.47
Source: 1998-2000 AACS.

R 325.48
Source: 1998-2000 AACS.

R 325.49
Source: 1998-2000 AACS.

R 325.50
Source: 1998-2000 AACS.

R 325.51
Source: 1998-2000 AACS.

R 325.52
Source: 1998-2000 AACS.

R 325.53
Source: 1998-2000 AACS.

R 325.54
Source: 1998-2000 AACS.

R 325.55
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R 325.56
Source: 1998-2000 AACS.

R 325.57
Source: 1998-2000 AACS.

R 325.58
Source: 1998-2000 AACS.

R 325.59
Source: 1998-2000 AACS.

R 325.60
Source: 1981 AACS.

R 325.61 Definitions.
Rule 1. (1) As used in these rules:
(a) "Heavy metal analysis report form" means the form used to report the required reportable information for blood and urine that has been analyzed for arsenic, cadmium, or mercury.
(b) “Pesticide poisoning report form” means the form used to report the required reportable information for blood that has been analyzed for acetylcholinesterase or pseudocholinesterase.
(c) “Pesticide” means any substance or mixture of substances including inert ingredients and adjuvants used to prevent, destroy, mitigate, or repel any pest. Pesticides include, but are not limited to, insecticides, herbicides, fungicides, rodenticides, repellents, fumigants, wood treatment products, and disinfectants.
(d) "Department" means the Michigan department of community health.
(e) "Physician/provider" means a person who is licensed under Article 15 of the public health code MCL 333.16101 to 333.18838 who provides health care services and who is authorized to request the analysis of blood and urine specimens.
History: 2005 MR 18, Eff. Sept. 23, 2005.

R 325.62 Reportable information.
Rule 2. (1) Reportable information is specifically related to blood and urine samples submitted to clinical laboratories for analysis.
(2) Upon initiating a request for analysis of arsenic, cadmium, mercury, acetylcholinesterase, or pseudocholinesterase, the physician/provider ordering the analysis shall complete the client information (section I) and the physician/provider information (section II) of a heavy metal analysis report form or pesticide poisoning report form designated by the department. Or, the physician/provider shall complete a similar form that ensures the inclusion of the same required data and provide all of the following information:
(a) All of the following information with respect to the individual tested:
(i) Name.
(ii) Sex, if available.
(iii) Race, if available.
(iv) Ethnic group, if available.
(v) Birthdate or age.
(vi) Address.
(vii) Telephone number.
(viii) If the individual is a minor, then the name of a parent or guardian.
(ix) If the individual is an adult, then the name and address of his or her employer, if available.
(b) The date the sample was collected.
(3) The heavy metal analysis report form or pesticide poisoning analysis report form, or a document with the same data, shall be submitted with the sample for analysis to a clinical laboratory that performs the analysis.
(4) Upon receipt of the blood or urine sample for analysis, the clinical laboratory shall complete the laboratory information (section III) and provide all of the information required and/or submitted by the physician/provider along with all of the following:
(a) The name, address, and phone number of the laboratory.
(b) The date of analysis.
(c) The results of the analysis. All values, normal and abnormal, shall be reported. For arsenic, blood levels shall be reported in micrograms per milliliter (μg/ml) and urine levels in micrograms per liter (μg/L). For cadmium, blood levels shall be reported as micrograms per liter (μg/L) of whole blood and urine tests shall be reported as micrograms per gram of creatinine (μg/gram creatinine) or micrograms per liter (μg/L). Mercury shall be reported as nanograms per milliliter of blood (ng/ml) and micrograms per liter (μg/L) of urine. Acetylcholinesterase shall be reported as units per gram of hemoglobin (U/g hemoglobin), and the laboratory normal range shall be included. Pseudocholinesterase levels shall be reported as units per liter (U/L) of plasma, and the laboratory normal range shall be included. Alternate units will be accepted for reporting purposes, as approved by the department.
History: 2005 MR 18, Eff. Sept. 23, 2005.

R 325.63 Reporting responsibilities.

Rule 3. (1) All clinical laboratories doing business in this state that analyze blood or urine samples for arsenic, cadmium, mercury, acetylcholinesterase, or pseudocholinesterase shall report all results to the department of community health, bureau of epidemiology, division of occupational and environmental epidemiology, 3423 N. Martin Luther King Jr. Blvd., Lansing, MI 48909. Reports shall be made within 5 working days after test completion.
(2) Nothing in this rule shall be construed to relieve a laboratory from reporting results of a blood or urine analysis for arsenic, cadmium, mercury, acetylcholinesterase, or pseudocholinesterase to the physician or other health care provider who ordered the test or to any other entity as required by state, federal, or local statutes or regulations or in accordance with accepted standard of practice, except that reporting in compliance with this rule satisfies the reporting requirements of 1978 PA 368, MCL 333.1101.
History: 2005 MR 18, Eff. Sept. 23, 2005.

R 325.64 Electronic communications.
Rule 4. (1) A clinical laboratory may submit the data required in R 325.62 electronically to the department.
(2) For electronic reporting, upon mutual agreement between the reporting laboratory and the department, the reporting shall utilize the data format specifications provided by the department.
History: 2005 MR 18, Eff. Sept. 23, 2005.

R 325.65 Investigation and quality assurance.
Rule 5. (1) The department, upon receiving a report under R 325.63 may investigate to determine the accuracy of the report, patient's source of exposure, and adverse health effects resulting from the exposure.
(2) Requests for individual medical and epidemiologic information to validate the completeness and accuracy of reporting are specifically authorized.
(3) The copies of the medical records shall not be recopied by the department and shall be kept in a locked file cabinet when not in use.
(4) Reports may be released to other state, local, or federal agencies for those agencies to administer and enforce provisions of laws or rules to protect individuals from exposure to hazardous levels of arsenic, mercury, cadmium, or pesticides. Confidential information may be released to another governmental agency only after execution of a signed interagency agreement assuring that the other agency will abide by the confidentiality requirements of R 325.66.
(5) Nothing in this rule shall be construed to relieve or preempt any other entities from investigating hazards associated with these substances under state, federal, or local statutes or regulations.
History: 2005 MR 18, Eff. Sept. 23, 2005.

R 325.66 Confidentiality of reports.
Rule 6. (1) Reports submitted to the department under R 325.63 are not public records and are exempt from disclosure pursuant to the freedom of information act, 1976 PA 442, MCL 15.243, section 13(1)(d).
(2) The department shall maintain the confidentiality of all reports of all tests submitted to the department and shall not release reports or any information that may be used to directly link the information to a particular individual, unless the department has received written consent from the individual, or from the individual's parent or legal guardian, requesting the release of information.
(3) Medical and epidemiological information that is released to a legislative body shall not contain information that identifies a specific individual. Aggregate epidemiological information concerning the public health that is released to the public for informational purposes only shall not contain information that identifies a specific individual.
History: 2005 MR 18, Eff. Sept. 23, 2005.

R 325.67 Heavy metal analysis report form.
Rule 7. The heavy metal analysis report form reads as follows:

MICHIGAN DEPARTMENT OF COMMUNITY HEALTH
HEAVY METAL ANALYSIS REPORT
DATA/INFORMATION REQUIRED BY ADMINISTRATIVE RULE R 325.62

I. CLIENT INFORMATION

Last name First name M.I.

Sex (M/F) Race (White/Black/Asian/Pacific Islander/American Indian/Alaskan/mixed)

Ethnicity (Hispanic Y/N) Birth date or age Phone number

Street address City State/Zip Code/County

Name of parent or guardian if individual is a minor

Employer name (if adult)

Employer street address City State/Zip Code

II. PHYSICIAN/PROVIDER INFORMATION

(_____)
Provider last name First name Phone number

Provider street address City State/Zip Code

III. LABORATORY INFORMATION

(_____)
Name of testing laboratory Phone number

Laboratory street address City State/Zip Code

Date sample taken Date sample analyzed

Results

Sample	Arsenic	Cadmium	Mercury
Blood	_____ µg/ml	_____ µg/L	_____ ng/ml
Urine OR µg/L	_____ µg/L	_____ µg/gram creatinine	_____ µg/L

MDCH – Bureau of Epidemiology, Division of Occupational and Environmental Epidemiology 3423 N. M.L. King, Jr. Blvd., Lansing, MI 48909 • Fax Number (517) 335-9775 • Phone number (517) 335-8350
History: 2005 MR 18, Eff. Sept. 23, 2005.

R 325.68 Pesticide poisoning analysis report form.
Rule 8. The pesticide poisoning report form reads as follows:

MICHIGAN DEPARTMENT OF COMMUNITY HEALTH
PESTICIDE POISONING REPORT
DATA/INFORMATION REQUIRED BY ADMINISTRATIVE RULE R 325.62

I. CLIENT INFORMATION

Last name First name M.I.

Sex (M/F) Race (White/Black/Asian/Pacific Islander/American Indian/Alaskan/mixed)

(_____)
Ethnicity (Hispanic Y/N) Birth date Phone number

Street address City State/Zip Code/County

Name and address of parent or guardian if individual is a minor

Employer

Employer street address City State/Zip Code/County

II. PHYSICIAN/PROVIDER INFORMATION

(_____)
Provider last name First name Phone number

Name of medical facility of requesting physician/provider

Facility street address City State/Zip Code

III. LABORATORY INFORMATION

(_____)
Name of testing laboratory Phone number

Laboratory street address City State/Zip Code

Date sample taken Date sample analyzed

Results

Test		Laboratory normal range
Acetylcholinesterase	_____ U/g hemoglobin	_____ - _____ U/g hemoglobin
Pseudocholinesterase	_____ U/L	_____ - _____ U/L

MDCH – Bureau of Epidemiology, Division of Occupational and Environmental Epidemiology 3423 N. M.L. King, Jr. Blvd., Lansing, MI 48909 • Fax Number (517) 335-9775 • Phone number (517) 335-8350
History: 2005 MR 18, Eff. Sept. 23, 2005.

R 325.70
Source: 1997 AACS.

R 325.71
Source: 1997 AACS.

R 325.72
Source: 1997 AACS.

R 325.80
Source: 1997 AACS.

R 325.81
Source: 1997 AACS.

R 325.90
Source: 1997 AACS.

R 325.100
Source: 1997 AACS.

R 325.101
Source: 1997 AACS.

R 325.102
Source: 1997 AACS.

R 325.103
Source: 1997 AACS.

R 325.104
Source: 1997 AACS.

R 325.106
Source: 1997 AACS.

R 325.107
Source: 1997 AACS.

R 325.110
Source: 1997 AACS.

R 325.115
Source: 1997 AACS.

R 325.120
Source: 1997 AACS.

R 325.121
Source: 1997 AACS.

HEALTH LEGISLATION AND POLICY DEVELOPMENT

CHILDHOOD IMMUNIZATION REGISTRY

R 325.161
Source: 1997 AACS.

R 325.162
Source: 1997 AACS.

R 325.163
Source: 1997 AACS.

R 325.164
Source: 1997 AACS.

R 325.165
Source: 1997 AACS.

R 325.166
Source: 1997 AACS.

R 325.167
Source: 1997 AACS.

R 325.168
Source: 1997 AACS.

R 325.169
Source: 1997 AACS.

BUREAU OF INFECTIOUS DISEASE CONTROL

COMMUNICABLE AND RELATED DISEASES

R 325.171
Source: 1998-2000 AACS.

R 325.172 Designation and classification of diseases and infections.
Rule 2. (1) All of the following conditions are designated as serious communicable diseases:
(a) Acquired immunodeficiency syndrome (AIDS).
(b) Amebiasis.
(c) Anthrax.
(d) Arboviral Disease (includes West Nile virus, Eastern equine encephalitis, St. Louis encephalitis, California-group (Lacrosse encephalitis).

(e) Aseptic (viral) meningitis.
(f) Avian Influenza
(g) Blastomycosis.
(h) Botulism.
(i) Brucellosis.
(j) Campylobacter enteritis.
(k) Chancroid.
(l) Chickenpox (Varicella).
(m) Chlamydial disease, genital.
(n) Cholera.
(o) Coccidioidomycosis.
(p) Cryptococcosis.
(q) Cryptosporidiosis.
(r) Cyclosporiasis.
(s) Dengue fever.
(t) Diphtheria.
(u) Ehrlichiosis.
(v) Encephalitis, viral.
(w) Escherichia coli, Shiga toxin positive - serotype O157:H7 and others.
(x) Giardiasis
(y) Glanders
(z) Gonorrhea
(aa) Granuloma inguinale (Donovanosis)
(bb) Haemophilus influenzae disease, meningitis, or epiglottitis.
(cc) Hantavirus pulmonary syndrome.
(dd) Hemolytic-Uremic syndrome (HUS), postdiarrheal.
(ee) Hepatitis A.
(ff) Hepatitis B
(gg) Hepatitis C.
(hh) Hepatitis, viral non-A ,B, C.
(ii) Histoplasmosis.
(jj) Human immunodeficiency virus (HIV).
(kk) Influenza.
(ll) Legionellosis.
(mm) Leprosy.
(nn) Leptospirosis.
(oo) Listeriosis.
(pp) Lyme disease.
(qq) Lymphogranuloma venereum.
(rr) Malaria.
(ss) Measles (Rubeola).
(tt) Meningococcal disease, meningitis, or meningococcemia.
(uu) Meningitis, other bacterial.
(vv) Mumps.
(ww) Orthopox virus (includes smallpox and Monkeypox).
(xx) Pertussis.
(yy) Plague.
(zz) Poliomyelitis, paralytic.
(aaa) Psittacosis.
(bbb) Q fever.
(ccc) Rabies, human.
(ddd) Rickettsial disease.
(eee) Rocky Mountain spotted fever.
(ggg) Rubella.
(hhh) Rubella syndrome, congenital.
(iii) Salmonellosis.

(jjj)Severe Acute Respiratory Syndrome (SARS).
(kkk) Shigellosis.
(lll) Spongioform encephalopathy (includes Creutzfeldt-Jakob disease).
(mmm) Staphylococcus aureus infections, vancomycin intermediate/resistant (VISA/VRSA).
(nnn) Staphylococcus aureus infections methicillin resistant (MRSA) (outbreaks only).
(ooo) Streptococcus pneumoniae infections, sterile sites, susceptible/resistant.
(ppp) Streptococcal infections, Streptococcus pyogenes group A, sterile sites.
(qqq) Syphilis.
(rrr) Tetanus.
(sss) Trachoma.
(ttt) Trichinosis.
(uuu) Tuberculosis.
(vvv) Tularemia.
(www) Typhoid fever.
(xxx) Typhus.
(yyy) Viral hemorrhagic fevers, (includes Lassa fever and Congo Crimean hemorrhagic fever).
(zzz) Yellow fever.
(aaaa) Yersinia enteritis.
(bbbb) The unusual occurrence, outbreak, or epidemic of any condition, including healthcare-associated infections.
(2) All of the following are designated as serious infections if a laboratory confirms their presence in an individual:
(a) Arbovirus.
(b) Avian influenza virus.
(c) Bacillus anthracis.
(d) Bordetella pertussis.
(e) Borrelia burgdorferi.
(f) Brucella species.
(g) Calymmatobacterium granulomatis.
(h) Campylobacter species.
(i) Chlamydia psittaci.
(j) Chlamydia trachomatis.
(k) Clostridium botulinum.
(l) Clostridium tetani.
(m) Coccidiodes immitis.
(n) Corynebacterium diphtheriae.
(o) Coxiella burnetii.
(p) Cryptococcus neoformans.
(q) Cryptosporidium species.
(r) Cyclospora species.
(s) Dengue Virus.
(t) Ehrlichia species.
(u) Encephalitis (viral).
(v) Entamoeba histolytica.
(w) Escherichia coli, shiga toxin positive - serotype O157:H7 and others.
(x) Francisella tularensis.
(y) Giardia lamblia.
(z) Haemophilus ducreyi.
(aa) Haemophilus influenzae type B.
(bb) Hantavirus.
(cc) Hemorrhagic fever viruses.
(dd) Hepatitis A, IgM.
(ee) Hepatitis B surface antigen.
(ff) HIV (Confirmed positive HIV serology and detection tests; CD4 counts/percents and all viral loads on people already known to be infected).

(gg)Histoplasma capsulatum.
(hh) Influenza virus.
(ii) Legionella species.
(jj) Leptospira species.
(kk) Listeria monocytogenes.
(ll) Meningitis, other bacterial.
(mm) Measles (Rubeola) virus.
(nn) Mumps virus.
(oo) Mycobacterium bovis.
(pp) Mycobacterium leprae.
(qq) Mycobacterium tuberculosis.
(rr) Neisseria gonorrhoeae.
(ss) Neisseria meningitidis.
(tt) Orthopox viruses.
(uu) Plasmodium species.
(vv) Poliovirus.
(ww) Rabies virus.
(xx) Rickettsia ricketsii.
(yy) Rickettsia species.
(zz) Rubella virus.
(aaa) Salmonella species.
(bbb) SARS coronavirus.
(ccc) Shigella species.
(ddd) Spongioform encephalopathy (includes Creutzfeldt-Jakob disease).
(eee) Staphylococcus aureus, vancomycin intermediate/resistant VISA/VRSA.
(fff) Staphylococcus aureus, methicillin resistant – outbreak only.
(ggg) Streptococcus pneumoniae, sterile sites, susceptible/resistant.
(hhh) Streptococcus pyogenes invasive, group A, sterile sites.
(iii) Treponema pallidum.
(jjj) Trichinella spiralis.
(kkk) Varicella virus (Chickenpox).
(lll) Vibrio cholera serovar 01.
(mmm) Yellow fever virus.
(nnn) Yersinia enterocolitica.
(ooo) Yersinia pestis.
(ppp) The unusual occurrence, outbreak, or epidemic of any infection.
(3) All of the following conditions are designated as noncommunicable diseases:
(a) Guillain-Barre syndrome.
(b) Kawasaki disease.
(c) Reye's syndrome.
(d) Rheumatic fever.
(e) Toxic shock syndrome.
History: 1993 MR 4, Eff. Apr. 29, 1993; 1999 MR 1, Eff. Feb. 5, 1999; 2005 MR 18, Eff. Sept. 23, 2005.

R 325.173 Reporting and surveillance requirements.
Rule 3. (1) A physician shall report each case of a serious communicable disease specified in R 325.172, except for human immunodeficiency virus infection and acquired immunodeficiency syndrome which are governed by MCL 333.5114, within 24 hours of diagnosis or discovery, to the appropriate health department.
(2) A physician shall report the unusual occurrence of any disease, infection, or condition that threatens the health of the public, within 24 hours of diagnosis or discovery, to the appropriate local health department.
(3) A physician shall report noncommunicable diseases specified in R 325.172 within 3 days of diagnosis or discovery, to the appropriate local health department.
(4) A physician is authorized to report any disease, infection, or condition that is not included in subrule (1), (2), or (3) of this rule to the appropriate local health department according to the physician's medical judgment.
(5) A clinical laboratory shall report, within 24 hours of discovery, both of the following to the appropriate local health department:

(a) Laboratory evidence of any serious infection specified in R 325.172 except for human immunodeficiency virus which is governed by MCL 333.5114.
(b) Laboratory evidence of any other disease, infection, or condition that is judged by the laboratory director to indicate that the health of the public is threatened. A laboratory in this state that receives or processes specimens to be tested for the listed agents shall report a result confirming presence of a listed agent, even if the testing is not done on-site, for example, the specimen is shipped to a reference laboratory for testing.
(6) When a physician or clinical laboratory suspects the presence of a designated condition, but does not have sufficient information to confirm its presence, the physician or laboratory shall report the designated condition as suspect to the appropriate local health department. Upon confirmation of the designated condition, a physician or laboratory shall report the condition as confirmed to the appropriate local health department.
(7) A health facility infection control committee shall develop policies and procedures to ensure the appropriate reporting of designated conditions by physicians who treat individuals at that facility and by clinical laboratories at that facility.
(8) All of the following individuals are authorized to report to the appropriate local health department any designated condition or any other disease, infection, or condition which comes to their professional attention and which poses a threat to the health of the public:
(a) An administrator, epidemiologist, or infection control professional from a health care facility or other institution.
(b) A dentist.
(c) A nurse.
(d) A pharmacist.
(e) A physician's assistant.
(f) A veterinarian.
(g) Any other health care professional.
(9) Within 24 hours of suspecting any of the following, a primary or secondary school, child daycare center, or camp shall report both of the following to the appropriate local health department:
(a) The occurrence among those in attendance of any of the serious communicable diseases specified in R 325.172, except for human immunodeficiency virus and acquired immunodeficiency syndrome which are governed by MCL 333.5131.
(b) The unusual occurrence, outbreak, or epidemic among those in attendance of any disease, infection, or condition.
(10) A report shall be directed to the appropriate local health department. A report may be written, oral, or transmitted by electronic media. A report shall be transmitted in a manner prescribed or approved by the appropriate local health department.
(11) Except as provided in subrules (13) and (14) of this rule, and except for human immunodeficiency virus and acquired immunodeficiency syndrome which are governed by MCL 333.5114, a required report by a physician shall contain all of the following information:
(a) The patient's full name.
(b) The patient's residential address, including street, city, village or township, county, and zip code.
(c) The patient's telephone number.
(d) The patient's date of birth, age, sex, race, and ethnic origin.
(e) The name of the disease, infection, or condition reported.
(f) The estimated date of the onset of the disease, infection, or condition, where applicable.
(g) The identity of the reporting person.
(h) Pertinent laboratory results.
(i) Any other information considered by the physician to be related to the health of the public.
(12) Acquired immunodeficiency syndrome (AIDS), human immunodeficiency virus (HIV) infection, tuberculosis, and venereal disease shall be reported by completing forms provided by the department. Information on what is to be reported and methods of reporting for human immunodeficiency virus and acquired immunodeficiency syndrome are governed by MCL 333.5114.
(13) Viral influenza need only be reported by the number of cases identified during a specified time period.
(14) A required report by a clinical laboratory shall contain all of the following information, except for human immunodeficiency virus and acquired immunodeficiency syndrome, which are governed by MCL 333.5114:
(a) The patient's full name.
(b) The patient's residential address, including street, city, village or township, county, and zip code.

(c) The patient's telephone number.
(d) The patient's date of birth or age.
(e) The patient's sex.
(f) The specific laboratory test, date performed, and the results.
(g) The name and address of the reporting clinical laboratory.
(h) The name, address, and telephone number of the ordering person.
(15) To the extent that the information is readily available, a report of an unusual occurrence, outbreak, or epidemic of a disease, infection, or other condition include all of the following information:
(a) The nature of the confirmed or suspected disease, infection, or condition.
(b) The approximate number of cases.
(c) The approximate illness onset dates.
(d) The location of the outbreak.
(16) Within 24 hours of receiving a report, a local health department shall communicate the report of an individual who has a serious communicable disease specified in R 325.172 or a serious infection specified in R 325.172 to the department and any other Michigan jurisdiction if the individual resides in that other jurisdiction.
(17) Within 3 days of receiving a report, a local health department shall communicate the report of an individual who has a noncommunicable disease specified in R 325.172 to the department and another Michigan jurisdiction if the individual resides in that other jurisdiction.
(18) Within 24 hours of receiving a report that concerns an individual who resides outside of Michigan, a local health department shall forward the report to the department.
(19) Reports of designated conditions acquired by residents of a local health department's jurisdiction shall be recorded by the local health officer and shall be forwarded to the department in a format specified by the department.
History: 1993 MR 4, Eff. Apr. 29, 1993; 2005 MR 18, Eff. Sept. 23, 2005.

R 325.174
Source: 1993 AACS.

R 325.175
Source: 1993 AACS.

R 325.176
Source: 1998-2000 AACS.

R 325.177
Source: 1993 AACS.

R 325.178
Source: 1998-2000 AACS.

R 325.179
Source: 1993 AACS.

R 325.180
Source: 1998-2000 AACS.

R 325.181
Source: 1993 AACS.

R 325.199
Source: 1993 AACS.

RABIES

R 325.201
Source: 1997 AACS.

CONVALESCENT SERA AND VACCINES

R 325.210
Source: 1997 AACS.

R 325.211
Source: 1997 AACS.

R 325.212
Source: 1997 AACS.

R 325.213
Source: 1997 AACS.

R 325.214
Source: 1997 AACS.

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R 325.224
Source: 1997 AACS.

POLIOMYELITIS VACCINE

R 325.231
Source: 1997 AACS.

R 325.232
Source: 1997 AACS.

R 325.233

Source: 1997 AACS.

R 325.234
Source: 1997 AACS.

R 325.235
Source: 1997 AACS.

R 325.236
Source: 1997 AACS.

R 325.237
Source: 1997 AACS.

R 325.238
Source: 1997 AACS.

R 325.239
Source: 1997 AACS.

DIABETES RESEARCH

R 325.271
Source: 1997 AACS.

R 325.272
Source: 1997 AACS.

R 325.273
Source: 1997 AACS.

R 325.274
Source: 1997 AACS.

R 325.275
Source: 1997 AACS.

KIDNEY TRAINING

R 325.281
Source: 1997 AACS.

R 325.282
Source: 1997 AACS.

R 325.283
Source: 1997 AACS.

R 325.284
Source: 1997 AACS.

BUREAU OF PERSONAL HEALTH SERVICES

MIDWIVES

R 325.321
Source: 1997 AACS.

R 325.322
Source: 1997 AACS.

R 325.323
Source: 1997 AACS.

R 325.324
Source: 1997 AACS.

R 325.325
Source: 1997 AACS.

R 325.326
Source: 1997 AACS.

R 325.327
Source: 1997 AACS.

R 325.328
Source: 1997 AACS.

R 325.329
Source: 1997 AACS.

R 325.330
Source: 1997 AACS.

OFFICE OF THE DIRECTOR

MINIMUM STANDARDS FOR GROUP DAY CARE OF CHILDREN

R 325.341
Source: 1997 AACS.

R 325.342
Source: 1997 AACS.

R 325.343
Source: 1997 AACS.

COMMUNICABLE DISEASES IN CHILDREN IN GROUP RESIDENCE, CARE, EDUCATION, AND CAMPING

R 325.351
Source: 1997 AACS.

R 325.352
Source: 1997 AACS.

SPECIAL AGENTS OF BUREAU OF RECORDS AND STATISTICS

R 325.361
Source: 1997 AACS.

BARBER SHOPS

R 325.451
Source: 1997 AACS.

FOOD ESTABLISHMENTS

R 325.592
Source: 1997 AACS.

R 325.593
Source: 1997 AACS.

DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER BUREAU

SANITARY STANDARDS FOR SCHOOLS

R 325.721 Rescinded.
History: 1944 AC; 1954 AC; 1979 AC; rescinded 2005 MR 12, Eff. June 21, 2005.

R 325.722 Rescinded.
History: 1944 AC; 1954 AC; 1979 AC; rescinded 2005 MR 12, Eff. June 21, 2005.

R 325.723 Rescinded.
History: 1944 AC; 1954 AC; 1979 AC; rescinded 2005 MR 12, Eff. June 21, 2005.

R 325.724 Rescinded.
History: 1944 AC; 1954 AC; 1979 AC; rescinded 2005 MR 12, Eff. June 21, 2005.

R 325.725 Rescinded.
History: 1944 AC; 1954 AC; 1979 AC; rescinded 2005 MR 12, Eff. June 21, 2005.

R 325.726 Rescinded.
History: 1944 AC; 1954 AC; 1979 AC; rescinded 2005 MR 12, Eff. June 21, 2005.

R 325.727 Rescinded.
History: 1944 AC; 1954 AC; 1979 AC; rescinded 2005 MR 12, Eff. June 21, 2005.

R 325.728 Rescinded.
History: 1944 AC; 1954 AC; 1979 AC; rescinded 2005 MR 12, Eff. June 21, 2005.

R 325.729 Rescinded.
History: 1944 AC; 1954 AC; 1979 AC; rescinded 2005 MR 12, Eff. June 21, 2005.

R 325.730 Rescinded.
History: 1944 AC; 1954 AC; 1979 AC; rescinded 2005 MR 12, Eff. June 21, 2005.

R 325.731 Rescinded.
History: 1944 AC; 1954 AC; 1979 AC; rescinded 2005 MR 12, Eff. June 21, 2005.

R 325.732 Rescinded.
History: 1944 AC; 1954 AC; 1979 AC; rescinded 2005 MR 12, Eff. June 21, 2005.

R 325.733 Rescinded.
History: 1944 AC; 1954 AC; 1979 AC; rescinded 2005 MR 12, Eff. June 21, 2005.

R 325.734 Rescinded.
History: 1944 AC; 1954 AC; 1979 AC; rescinded 2005 MR 12, Eff. June 21, 2005.

BOTTLE CAPS

R 325.741
Source: 1997 AACS.

TRAILER COACH PARKS

R 325.746
Source: 1997 AACS.

BUREAU OF DISEASE CONTROL AND LABORATORY SERVICES

CONTROL OF TUBERCULOSIS

PART 1. STATE SUBSIDY

R 325.763
Source: 1997 AACS.

PART 2. ADMISSIONS TO TUBERCULOSIS HOSPITALS

R 325.771
Source: 1997 AACS.

R 325.772
Source: 1997 AACS.

R 325.773
Source: 1997 AACS.

R 325.775
Source: 1997 AACS.

PART 3. TRANSFERS, DISCHARGES, AND DEATHS

R 325.781
Source: 1997 AACS.

R 325.782
Source: 1997 AACS.

R 325.783
Source: 1997 AACS.

R 325.784
Source: 1997 AACS.

R 325.786
Source: 1997 AACS.

PART 4A. VOUCHERS FOR COUNTY CHARGE PATIENTS

R 325.801
Source: 1997 AACS.

R 325.802
Source: 1997 AACS.

R 325.803
Source: 1997 AACS.

R 325.804
Source: 1997 AACS.

PART 4B. VOUCHERS FOR STATE AT LARGE PATIENTS

R 325.811
Source: 1997 AACS.

R 325.812
Source: 1997 AACS.

R 325.813
Source: 1997 AACS.

R 325.814
Source: 1997 AACS.

R 325.815
Source: 1997 AACS.

R 325.816
Source: 1997 AACS.

R 325.817
Source: 1997 AACS.

R 325.818
Source: 1997 AACS.

R 325.820
Source: 1997 AACS.

PART 5. REIMBURSEMENTS FOR CARE OF PATIENTS

R 325.831
Source: 1997 AACS.

R 325.832
Source: 1997 AACS.

R 325.833
Source: 1997 AACS.

R 325.834
Source: 1997 AACS.

PART 6. RECALCITRANT PATIENTS

R 325.841
Source: 1997 AACS.

R 325.842
Source: 1997 AACS.

R 325.843
Source: 1997 AACS.

R 325.844
Source: 1997 AACS.

R 325.845
Source: 1997 AACS.

R 325.846
Source: 1997 AACS.

R 325.847
Source: 1997 AACS.

R 325.848
Source: 1997 AACS.

R 325.849
Source: 1997 AACS.

R 325.850
Source: 1997 AACS.

R 325.851
Source: 1997 AACS.

R 325.852
Source: 1997 AACS.

PART 7. REIMBURSEMENT PROCEDURE

R 325.861
Source: 1997 AACS.

R 325.862
Source: 1997 AACS.

R 325.863
Source: 1997 AACS.

R 325.864
Source: 1997 AACS.

R 325.865
Source: 1997 AACS.

R 325.866
Source: 1997 AACS.

R 325.867
Source: 1997 AACS.

R 325.871
Source: 1997 AACS.

R 325.872
Source: 1997 AACS.

R 325.873
Source: 1997 AACS.

R 325.874
Source: 1997 AACS.

R 325.875
Source: 1997 AACS.

PART 8. VOLUNTARY AGREEMENTS BY PATIENTS TO MAKE REIMBURSEMENT

R 325.881
Source: 1997 AACS.

R 325.882
Source: 1997 AACS.

R 325.883
Source: 1997 AACS.

R 325.884
Source: 1997 AACS.

R 325.885
Source: 1997 AACS.

R 325.886
Source: 1997 AACS.

PART 9. WITHHOLDING SUBSIDIES

R 325.891
Source: 1997 AACS.

PART 10. REPORTS OF CHEST X-RAYS

R 325.896
Source: 1997 AACS.

PART 11. EXAMINATION OF PERSONS IN HIGH EXPOSURE GROUPS

R 325.897
Source: 1997 AACS.

R 325.898
Source: 1997 AACS.

R 325.901
Source: 1997 AACS.

R 325.902
Source: 1997 AACS.

HUMANE CARE AND USE OF ANIMALS

R 325.921
Source: 1980 AACS.

R 325.922
Source: 1980 AACS.

R 325.923
Source: 1980 AACS.

R 325.924
Source: 1980 AACS.

R 325.925
Source: 1980 AACS.

R 325.926
Source: 1980 AACS.

ANATOMY BOARD

ANATOMICAL GIFTS

R 325.951
Source: 1981 AACS.

R 325.952
Source: 1981 AACS.

R 325.953
Source: 1981 AACS.

R 325.954
Source: 1981 AACS.

R 325.955
Source: 1981 AACS.

BUREAU OF DISEASE CONTROL AND LABORATORY SERVICES

HUMANE USE OF ANIMALS

R 325.981
Source: 1997 AACS.

R 325.982
Source: 1997 AACS.

R 325.983
Source: 1997 AACS.

R 325.984
Source: 1997 AACS.

R 325.985
Source: 1997 AACS.

R 325.986
Source: 1997 AACS.

R 325.987
Source: 1997 AACS.

R 325.988
Source: 1997 AACS.

R 325.989
Source: 1997 AACS.

R 325.990
Source: 1997 AACS.

R 325.991
Source: 1997 AACS.

R 325.992
Source: 1997 AACS.

DEPARTMENT OF CONSUMER AND INDUSTRY SERVICES

HEALTH FACILITIES SERVICES ADMINISTRATION

MINIMUM STANDARDS FOR HOSPITALS

PART 3. OPERATIONAL RULES AND MINIMUM STANDARDS FOR ALL HOSPITAL-PHYSICAL PLANT, FACILITIES, EQUIPMENT, AND OPERATION

R 325.1053
Source: 1981 AACS.

R 325.1054
Source: 1981 AACS.

R 325.1056
Source: 1981 AACS.

DEPARTMENT OF COMMUNITY HEALTH

OFFICE OF THE DIRECTOR

DONATED AND UNCLAIMED DEAD HUMAN BODIES OR PARTS

R 325.1171
Source: 1997 AACS.

R 325.1172
Source: 1997 AACS.

R 325.1173
Source: 1997 AACS.

R 325.1174
Source: 1997 AACS.

R 325.1175
Source: 1997 AACS.

R 325.1176
Source: 1997 AACS.

R 325.1177
Source: 1997 AACS.

HEARINGS

R 325.1201
Source: 1997 AACS.

R 325.1202
Source: 1997 AACS.

R 325.1203
Source: 1997 AACS.

R 325.1204
Source: 1997 AACS.

R 325.1205
Source: 1997 AACS.

R 325.1206
Source: 1997 AACS.

DEPARTMENT OF CONSUMER AND INDUSTRY SERVICES

BOARD OF EXAMINERS FOR SANITARIANS

R 325.1401
Source: 1997 AACS.

R 325.1402
Source: 1997 AACS.

R 325.1403
Source: 1997 AACS.

R 325.1404
Source: 1997 AACS.

R 325.1405
Source: 1997 AACS.

R 325.1406
Source: 1997 AACS.

R 325.1407
Source: 1997 AACS.

R 325.1408
Source: 1997 AACS.

R 325.1409
Source: 1997 AACS.

R 325.1410
Source: 1997 AACS.

R 325.1411
Source: 1997 AACS.

R 325.1412
Source: 1997 AACS.

DEPARTMENT OF COMMUNITY HEALTH

POLICY AND LEGAL AFFAIRS ADMINISTRATION

PHENYLKETONURIA TEST ON NEWBORN INFANTS

R 325.1471 Rescission.
History: 1954 ACS 45, Eff. Feb. 14, 1966; 1979 AC; rescinded 2003 MR 19, Eff. Oct. 15, 2003.

R 325.1472 Rescission.
History: 1954 ACS 45, Eff. Feb. 14, 1966; 1979 AC; rescinded 2003 MR 19, Eff. Oct. 15, 2003.

R 325.1473 Rescission.
History: 1954 ACS 45, Eff. Feb. 14, 1966; 1979 AC; rescinded 2003 MR 19, Eff. Oct. 15, 2003.

R 325.1474 Rescission.
History: 1954 ACS 45, Eff. Feb. 14, 1966; 1979 AC; rescinded 2003 MR 19, Eff. Oct. 15, 2003.

R 325.1475 Rescission.
History: 1954 ACS 45, Eff. Feb. 14, 1966; 1979 AC; rescinded 2003 MR 19, Eff. Oct. 15, 2003.

DEPARTMENT OF COMMUNITY HEALTH

OFFICE OF THE DIRECTOR

PRESCHOOL VISION TESTS

R 325.1481
Source: 1997 AACS.

DISEASE CONTROL IN SCHOOLS

R 325.1491
Source: 1997 AACS.

AGRICULTURAL LABOR CAMPS

R 325.1501
Source: 1997 AACS.

R 325.1502
Source: 1997 AACS.

R 325.1503
Source: 1997 AACS.

R 325.1504
Source: 1997 AACS.

R 325.1505
Source: 1997 AACS.

R 325.1506
Source: 1997 AACS.

R 325.1507
Source: 1997 AACS.

R 325.1508
Source: 1997 AACS.

R 325.1509
Source: 1997 AACS.

R 325.1510
Source: 1997 AACS.

R 325.1511
Source: 1997 AACS.

R 325.1512
Source: 1997 AACS.

R 325.1513
Source: 1997 AACS.

R 325.1514
Source: 1997 AACS.

R 325.1515
Source: 1997 AACS.

R 325.1531
Source: 1997 AACS.

R 325.1532
Source: 1997 AACS.

R 325.1533
Source: 1997 AACS.

R 325.1534
Source: 1997 AACS.

R 325.1535
Source: 1997 AACS.

R 325.1536
Source: 1997 AACS.

DEPARTMENT OF ENVIRONMENTAL QUALITY

DRINKING WATER AND RADIOLOGICAL PROTECTION DIVISION

MEDICAL WASTE PRODUCING FACILITIES

325.1541
Source: 1998-2000 AACS.

325.1542
Source: 1998-2000 AACS.

325.1543
Source: 1998-2000 AACS.

325.1544
Source: 1998-2000 AACS.

325.1545
Source: 1998-2000 AACS.

325.1546
Source: 1998-2000 AACS.

325.1547
Source: 1998-2000 AACS.

325.1548
Source: 1998-2000 AACS.

325.1549
Source: 1998-2000 AACS.

DEPARTMENT OF ENVIRONMENTAL QUALITY

DIVISION OF ENVIRONMENTAL HEALTH

CAMPGROUNDS

R 325.1551
Source: 1998-2000 AACS.

R 325.1552
Source: 1998-2000 AACS.

R 325.1553
Source: 1998-2000 AACS.

R 325.1554
Source: 1998-2000 AACS.

R 325.1555
Source: 1998-2000 AACS.

R 325.1555a
Source: 1998-2000 AACS.

R 325.1555b
Source: 1998-2000 AACS.

R 325.1556
Source: 1998-2000 AACS.

R 325.1556a
Source: 1998-2000 AACS.

R 325.1556b
Source: 1998-2000 AACS.

R 325.1557
Source: 1998-2000 AACS.

R 325.1558
Source: 1998-2000 AACS.

R 325.1559
Source: 1998-2000 AACS.

R 325.1560
Source: 1998-2000 AACS.

R 325.1561
Source: 1998-2000 AACS.

R 325.1562
Source: 1998-2000 AACS.

R 325.1563
Source: 1998-2000 AACS.

R 325.1564
Source: 1998-2000 AACS.

R 325.1566
Source: 1998-2000 AACS.

R 325.1568
Source: 1998-2000 AACS.

R 325.1569
Source: 1987 AACS.

R 325.1571
Source: 1998-2000 AACS.

R 325.1574

Source: 1998-2000 AACS.

R 325.1576
Source: 1998-2000 AACS.

R 325.1585
Source: 1987 AACS.

R 325.1586
Source: 1998-2000 AACS.

R 325.1599
Source: 1998-2000 AACS.

DIVISION OF WATER SUPPLY

GROUNDWATER QUALITY CONTROL

PART 1. WELL CONSTRUCTION CODE

R 325.1601
Source: 1994 AACS.

R 325.1601a
Source: 1994 AACS.

R 325.1602
Source: 1994 AACS.

R 325.1603
Source: 1994 AACS.

R 325.1603a
Source: 1994 AACS.

R 325.1604
Source: 1994 AACS.

R 325.1605
Source: 1994 AACS.

R 325.1606
Source: 1994 AACS.

R 325.1607
Source: 1994 AACS.

R 325.1608
Source: 1994 AACS.

R 325.1610
Source: 1994 AACS.

R 325.1611
Source: 1994 AACS.

R 325.1612
Source: 1994 AACS.

R 325.1613
Source: 1994 AACS.

R 325.1621
Source: 1994 AACS.

R 325.1622
Source: 1994 AACS.

R 325.1624
Source: 1994 AACS.

R 325.1625
Source: 1994 AACS.

R 325.1626
Source: 1994 AACS.

R 325.1627
Source: 1994 AACS.

R 325.1631
Source: 1997 AACS.

R 325.1631a
Source: 1994 AACS.

R 325.1631b
Source: 1994 AACS.

R 325.1631c
Source: 1994 AACS.

R 325.1631d
Source: 1994 AACS.

R 325.1632
Source: 1994 AACS.

R 325.1632a
Source: 1994 AACS.

R 325.1633
Source: 1997 AACS.

R 325.1633a
Source: 1994 AACS.

R 325.1634
Source: 1997 AACS.

R 325.1634a
Source: 1994 AACS.

R 325.1635
Source: 1994 AACS.

R 325.1636
Source: 1997 AACS.

R 325.1637
Source: 1994 AACS.

R 325.1637a
Source: 1994 AACS.

R 325.1638
Source: 1994 AACS.

R 325.1639
Source: 1994 AACS.

R 325.1640
Source: 1994 AACS.

R 325.1641
Source: 1994 AACS.

R 325.1642
Source: 1994 AACS.

R 325.1651
Source: 1994 AACS.

R 325.1652
Source: 1997 AACS.

R 325.1653
Source: 1994 AACS.

R 325.1653a
Source: 1994 AACS.

R 325.1654
Source: 1994 AACS.

R 325.1655
Source: 1994 AACS.

R 325.1656
Source: 1994 AACS.

R 325.1656a
Source: 1994 AACS.

R 325.1657
Source: 1994 AACS.

R 325.1657a
Source: 1994 AACS.

R 325.1658
Source: 1994 AACS.

R 325.1661

Source: 1994 AACS.

R 325.1662
Source: 1994 AACS.

R 325.1663
Source: 1994 AACS.

R 325.1664
Source: 1994 AACS.

R 325.1665
Source: 1994 AACS.

R 325.1666
Source: 1997 AACS.

R 325.1667
Source: 1994 AACS.

R 325.1668
Source: 1994 AACS.

R 325.1669
Source: 1994 AACS.

R 325.1670
Source: 1994 AACS.

R 325.1671
Source: 1997 AACS.

R 325.1672
Source: 1994 AACS.

R 325.1673
Source: 1994 AACS.

R 325.1674
Source: 1994 AACS.

R 325.1674a
Source: 1994 AACS.

R 325.1675
Source: 1994 AACS.

R 325.1676
Source: 1994 AACS.

PART 2. DRILLING CONTRACTORS' AND PUMP INSTALLERS' REGISTRATION

R 325.1701
Source: 1994 AACS.

R 325.1701a
Source: 1994 AACS.

R 325.1702
Source: 1994 AACS.

R 325.1703
Source: 1994 AACS.

R 325.1704
Source: 1994 AACS.

R 325.1705
Source: 1997 AACS.

R 325.1705a
Source: 1994 AACS.

R 325.1706
Source: 1994 AACS.

R 325.1707
Source: 1994 AACS.

R 325.1707a
Source: 1994 AACS.

R 325.1708
Source: 1994 AACS.

R 325.1709
Source: 1994 AACS.

R 325.1711
Source: 1994 AACS.

PART 3. DRILLING MACHINES AND SERVICE VEHICLES

R 325.1721
Source: 1994 AACS.

R 325.1722
Source: 1994 AACS.

FAMILY INDEPENDENCE AGENCY

DIRECTOR'S OFFICE

HOMES FOR THE AGED

R 325.1801
Source: 2004 AACS.

R 325.1811
Source: 2004 AACS.

R 325.1812
Source: 2004 AACS.

R 325.1813

Source: 2004 AACS.

R 325.1815
Source: 2004 AACS.

R 325.1816
Source: 2004 AACS.

R 325.1819
Source: 2004 AACS.

R 325.1821
Source: 2004 AACS.

R 325.1825
Source: 2004 AACS.

R 325.1827
Source: 2004 AACS.

R 325.1829
Source: 2004 AACS.

R 325.1831
Source: 2004 AACS.

R 325.1833
Source: 2004 AACS.

R 325.1835
Source: 2004 AACS.

R 325.1836
Source: 2004 AACS.

R 325.1837
Source: 2004 AACS.

R 325.1839
Source: 2004 AACS.

R 325.1841
Source: 2004 AACS.

R 325.1843
Source: 2004 AACS.

R 325.1845
Source: 2004 AACS.

R 325.1847
Source: 2004 AACS.

R 325.1851
Source: 2004 AACS.

R 325.1853
Source: 2004 AACS.

R 325.1855
Source: 2004 AACS.

R 325.1857
Source: 2004 AACS.

R 325.1859
Source: 2004 AACS.

R 325.1861
Source: 2004 AACS.

R 325.1863
Source: 2004 AACS.

R 325.1865
Source: 2004 AACS.

R 325.1867
Source: 2004 AACS.

R 325.1871
Source: 2004 AACS.

R 325.1872
Source: 2004 AACS.

R 325.1873
Source: 2004 AACS.

R 325.1874
Source: 2004 AACS.

R 325.1875
Source: 2004 AACS.

R 325.1876
Source: 2004 AACS.

R 325.1877
Source: 2004 AACS.

R 325.1878
Source: 2004 AACS.

R 325.1879
Source: 2004 AACS.

R 325.1880
Source: 2004 AACS.

R 325.1881
Source: 2004 AACS.

R 325.1882
Source: 2004 AACS.

R 325.1883
Source: 2004 AACS.

R 325.1884
Source: 2004 AACS.

R 325.1885
Source: 2004 AACS.

R 325.1886
Source: 2004 AACS.

R 325.1887
Source: 2004 AACS.

R 325.1888
Source: 2004 AACS.

R 325.1889
Source: 2004 AACS.

R 325.1890
Source: 2004 AACS.

R 325.1891
Source: 2004 AACS.

PART 1. GENERAL PROVISIONS

R 325.1901
Source: 2004 AACS.

R 325.1909
Source: 1997 AACS.

PART 2. STATE ADMINISTRATION

R 325.1911
Source: 2004 AACS.

R 325.1912
Source: 2004 AACS.

R 325.1913
Source: 2004 AACS.

R 325.1914
Source: 2004 AACS.

R 325.1915
Source: 2004 AACS.

R 325.1916

Source: 2004 AACS.

R 325.1917
Source: 2004 AACS.

R 325.1919
Source: 1997 AACS.

PART 3. ADMINISTRATIVE MANAGEMENT OF HOMES

R 325.1921
Source: 2004 AACS.

R 325.1922
Source: 2004 AACS.

R 325.1923
Source: 2004 AACS.

R 325.1924
Source: 2004 AACS.

R 325.1925
Source: 1997 AACS.

R 325.1927
Source: 1997 AACS.

R 325.1928
Source: 1997 AACS.

PART 4. RESIDENT CARE

R 325.1931
Source: 2004 AACS.

R 325.1932
Source: 2004 AACS.

R 325.1933
Source: 2004 AACS.

R 325.1934
Source: 2004 AACS.

R 325.1935
Source: 2004 AACS.

R 325.1936
Source: 1997 AACS.

R 325.1937
Source: 1997 AACS.

R 325.1938
Source: 1997 AACS.

R 325.1939
Source: 1997 AACS.

PART 5. RECORDS

R 325.1941
Source: 2004 AACS.

R 325.1942
Source: 2004 AACS.

R 325.1943
Source: 2004 AACS.

R 325.1944
Source: 2004 AACS.

R 325.1945
Source: 1997 AACS.

R 325.1947
Source: 1997 AACS.

PART 6. FOOD SERVICE

R 325.1951
Source: 2004 AACS.

R 325.1952
Source: 2004 AACS.

R 325.1953
Source: 2004 AACS.

R 325.1954
Source: 2004 AACS.

R 325.1957
Source: 1997 AACS.

R 325.1959
Source: 1997 AACS.

PART 7. BUILDINGS AND GROUNDS

R 325.1961
Source: 2004 AACS.

R 325.1962
Source: 2004 AACS.

R 325.1963
Source: 2004 AACS.

R 325.1964

Source: 2004 AACS.

R 325.1965
Source: 2004 AACS.

R 325.1966
Source: 2004 AACS.

R 325.1967
Source: 2004 AACS.

R 325.1968
Source: 2004 AACS.

R 325.1969
Source: 2004 AACS.

R 325.1970
Source: 2004 AACS.

R 325.1971
Source: 2004 AACS.

R 325.1972
Source: 2004 AACS.

R 325.1973
Source: 2004 AACS.

R 325.1974
Source: 2004 AACS.

R 325.1975
Source: 2004 AACS.

R 325.1976
Source: 2004 AACS.

R325.1977
Source: 2004 AACS.

R 325.1978
Source: 2004 AACS.

R 325.1979
Source: 2004 AACS.

R 325.1980
Source: 2004 AACS.

PART 8. EMERGENCY PROCEDURES

R 325.1981
Source: 2004 AACS.

R 325.1982

Source: 1997 AACS.

R 325.1983
Source: 1997 AACS.

R 325.1984
Source: 1997 AACS.

R 325.1985
Source: 1997 AACS.

R 325.1986
Source: 1997 AACS.

R 325.1991
Source: 1997 AACS.

R 325.1993
Source: 1997 AACS.

R 325.1995
Source: 1997 AACS.

R 325.1997
Source: 1997 AACS.

R 325.2001
Source: 1997 AACS.

R 325.2002
Source: 1997 AACS.

R 325.2004
Source: 1997 AACS.

R 325.2005
Source: 1997 AACS.

R 325.2007
Source: 1997 AACS.

R 325.2011
Source: 1997 AACS.

R 325.2012
Source: 1997 AACS.

R 325.2013
Source: 1997 AACS.

R 325.2014
Source: 1997 AACS.

R 325.2015
Source: 1997 AACS.

R 325.2016
Source: 1997 AACS.

R 325.2017
Source: 1997 AACS.

R 325.2018
Source: 1997 AACS.

R 325.2019
Source: 1997 AACS.

R 325.2020
Source: 1997 AACS.

R 325.2021
Source: 1997 AACS.

R 325.2022
Source: 1997 AACS.

R 325.2023
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R 325.2024
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R 325.2025
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R 325.2026
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R 325.2027
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R 325.2029
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R 325.2031
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R 325.2034
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R 325.2035
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R 325.2036
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R 325.2037
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R 325.2038
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R 325.2041
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R 325.2051
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R 325.2052
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R 325.2055
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R 325.2057
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R 325.2068
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R 325.2071
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R 325.2072
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R 325.2074
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R 325.2075
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R 325.2081
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R 325.2082
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R 325.2083
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R 325.2084
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R 325.2085
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R 325.2091
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R 325.2092
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R 325.2093
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R 325.2094
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R 325.2095
Source: 1997 AACS.

R 325.2096
Source: 1997 AACS.

R 325.2097
Source: 1997 AACS.

DEPARTMENT OF COMMUNITY HEALTH

BUREAU OF ENVIRONMENTAL AND OCCUPATIONAL HEALTH

PUBLIC BATHING BEACHES

R 325.2101
Source: 1995 AACS.

R 325.2102
Source: 1995 AACS.

R 325.2103
Source: 1995 AACS.

DEPARTMENT OF ENVIRONMENTAL QUALITY

ENVIRONMENTAL AND OCCUPATIONAL HEALTH SERVICES ADMINISTRATION

PUBLIC SWIMMING POOLS

PART 1. GENERAL PROVISIONS

R 325.2111
Source: 2001 AACS.

R 325.2113
Source: 2001 AACS.

R 325.2113a
Source: 2001 AACS.

R 325.2114
Source: 2001 AACS.

R 325.2115
Source: 2001 AACS.

R 325.2116
Source: 2001 AACS.

R 325.2117
Source: 2001 AACS.

R 325.2118
Source: 2001 AACS.

R 325.2118a
Source: 2001 AACS.

R 325.2118d
Source: 2001 AACS.

PART 2. CONSTRUCTION

R 325.2121
Source: 2001 AACS.

R 325.2122
Source: 2001 AACS.

R 325.2123
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R 325.2124
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R 325.2125

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R 325.2126
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R 325.2127
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R 325.2128
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R 325.2129
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R 325.2129a
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R 325.2131
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R 325.2137
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R 325.2138
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R 325.2141
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R 325.2142
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R 325.2143
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R 325.2143a
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R 325.2144
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R 325.2145
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R 325.2146
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R 325.2159
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R 325.2161
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R 325.2163
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R 325.2165
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R 325.2171
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R 325.2174
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R 325.2175
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R 325.2176
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R 325.2178
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R 325.2179
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R 325.2181

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R 325.2182
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R 325.2183
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R 325.2184
Source: 2001 AACS.

PART 3. OPERATION AND USE

R 325.2191
Source: 2001 AACS.

R 325.2192
Source: 2001 AACS.

R 325.2193
Source: 2001 AACS.

R 325.2194
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R 325.2194a
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R 325.2195
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R 325.2196
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R 325.2197
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R 325.2198
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R 325.2199
Source: 2001 AACS.

DEPARTMENT OF CONSUMER AND INDUSTRY SERVICES

OFFICE OF DIRECTOR

AMBULANCES

R 325.2201
Source: 1997 AACS.

R 325.2202
Source: 1997 AACS.

R 325.2203
Source: 1997 AACS.

R 325.2204
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R 325.2205
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R 325.2206
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R 325.2207
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R 325.2208
Source: 1997 AACS.

BUREAU OF HEALTH CARE ADMINISTRATION

ADVANCED EMERGENCY MEDICAL SERVICES

R 325.2211
Source: 1997 AACS.

R 325.2221
Source: 1997 AACS.

R 325.2222
Source: 1997 AACS.

R 325.2223
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R 325.2224
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R 325.2225
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R 325.2233
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R 325.2234
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R 325.2241
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R 325.2242
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R 325.2243
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R 325.2244
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R 325.2245
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R 325.2246
Source: 1997 AACS.

DEPARTMENT OF CONSUMER AND INDUSTRY SERVICES

DIRECTOR'S OFFICE

OCCUPATIONAL HEALTH STANDARDS

R 325.2401
Source: 2003 AACS.

R 325.2402
Source: 2003 AACS.

R 325.2403
Source: 2003 AACS.

R 325.2404
Source: 2003 AACS.

R 325.2405
Source: 2003 AACS.

R 325.2410
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R 325.2411
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R 325.2412
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R 325.2415
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R 325.2442b
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R 325.2442c
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R 325.2443
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R 325.2444
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R 325.2445
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R 325.2446
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R 325.2447
Source: 2003 AACS.

R 325.2448
Source: 2003 AACS.

DEPARTMENT OF AGRICULTURE

FOOD SERVICE SANITATION

R 325.2501
Source: 1997 AACS.

R 325.2502
Source: 1997 AACS.

R 325.2503
Source: 1997 AACS.

R 325.2504
Source: 1997 AACS.

R 325.2505
Source: 1997 AACS.

DEPARTMENT OF COMMUNITY HEALTH

OFFICE OF THE DIRECTOR

MERCURY LEVELS IN FISH FROM MICHIGAN WATERS

R 325.2601
Source: 1997 AACS.

R 325.2602
Source: 1997 AACS.

R 325.2603

Source: 1997 AACS.

R 325.2604
Source: 1997 AACS.

R 325.2605
Source: 1997 AACS.

DEPARTMENT OF STATE POLICE

SPECIAL OPERATIONS DIVISION

TESTS FOR BREATH ALCOHOL

R 325.2651
Source: 2003 AACS.

R 325.2652
Source: 1994 AACS.

R 325.2653
Source: 2003 AACS.

R 325.2654
Source: 1992 AACS.

R 325.2655
Source: 2003 AACS.

R 325.2656
Source: 1994 AACS.

R 325.2657
Source: 1997 AACS.

R 325.2658
Source: 1994 AACS.

R 325.2659 Rescinded.
History: 1954 ACS 78, Eff. Feb. 28, 1974; 1979 AC; 2003 MR 18, Eff. Sept.30, 2003; rescinded 2005 MR 12, Eff. June 24, 2005.

FORENSIC SCIENCE DIVISION

ALCOHOL TESTING OF BLOOD AND URINE

R 325.2671 "Control sample" defined.
Rule 1. "Control sample" means a sample of known concentration that is used to verify the calibration and accuracy of a given analytical method.
History: 1993 MR 4, Eff. May 5, 1993; 2005 MR 9, Eff. May 23, 2005.

R 325.2672 Tests; application; expression of results; filing.
Rule 2. (1) Tests to determine the presence or concentration, or both, of alcohol or other drugs, or both, may be applied to blood, urine, or other biological samples. Results of blood alcohol analysis shall be expressed in percent weight of ethyl alcohol (weight per unit volume) equivalent to grams per 100 milliliters. Results of urine alcohol analysis shall be expressed as weight per unit volume of ethyl alcohol, equivalent to either grams per 100 milliliters, or grams per 67 milliliters. Where applicable, results of analysis for drugs or other volatiles shall be expressed as weight per unit volume.

(2) Serum or plasma alcohol concentrations shall be expressed as an equivalent whole blood alcohol concentration.
(3) Tests to determine the concentration of alcohol may be applied to nonbiological samples. Results shall be expressed in percent volume of ethyl alcohol (volume per unit volume).
(4) At least 1 copy of the written method or methods or techniques that are utilized in the laboratory shall be on file in that laboratory.
History: 1993 MR 4, Eff. May 5, 1993; 2005 MR 9, Eff. May 23, 2005.

R 325.2673 Acceptable techniques.
Rule 3. The following are examples of acceptable techniques, analyzers, and kits for determining the presence or concentration, or both, of alcohol and other drugs in blood, urine, or other various matrices or media:
(a) Direct distillation/dichromate oxidation methods as follows:
(i) "Dubowski and Withrow," proc. Am. acad for sci, 2:323, 1952.
(ii) "Shupe and Dubowski," Am J clin path., 22:901, 1952.
(b) Gas chromatograph method using a gas chromatograph that has satisfactory accuracy, precision, sensitivity, and a suitable column for direct injection or head-space gas chromatography for ethyl alcohol and other volatiles.
(c) Gas chromatography/mass spectrometry method using a gas chromatograph and mass spectrometer that have satisfactory accuracy, precision, sensitivity, and a suitable column for direct injection or head-space gas chromatography for identification of drugs or compounds other than ethanol.
(d) Spectrophotometric methods as follows:
(i) Williams, Louis A. CRC Manual of Analytical Toxicology, 1971, p. 309
(ii) Freireich A. et al. CRC Methodology for Analytical Toxicology, 1975, pp. 67-69.
(e) Enzymatic and immunological methods as follows:
(i) "Stiles, et al.," Am J clin path., 46:608, 1966.
(ii) "Bonnichsen and Lundgren," J Acta pharmacol toxicol., 13:256, 1957.
(f) Analyzers and kits as follows:
(i) CalBiochem-Behring ethyl alcohol kit.
(ii) Dupont ACA instrument using ethyl alcohol (ALC) kit.
(iii) Sigma diagnostics alcohol (ethanol) kit.
(iv) Abbott diagnostics TDx ethanol kit.
(v) Abbott diagnostics AxSym Autoanalyzer reagent systems**.**
History: 1993 MR 4, Eff. May 5, 1993; 2005 MR 9, Eff. May 23, 2005.

R 325.2674 Calibration.
Rule 4. Calibration of the method or equipment used to test for alcohol or other drugs for which quantitative analysis is performed in blood, urine, or other biological or nonbiological samples shall be verified through the use of control samples each day that tests are run. Results of the control samples shall be documented and retained by the laboratory for a minimum of 1 year.
History: 1993 MR 4, Eff. May 5, 1993; 2005 MR 9, Eff. May 23, 2005.

R 325.2675
Source: 1993 AACS.

R 325.2676
Source: 1997 AACS.

R 325.2677
Source: 1997 AACS.

DEPARTMENT OF ENVIRONMENTAL QUALITY

BUREAU OF ENVIRONMENTAL AND OCCUPATIONAL HEALTH

SOLID WASTE DISPOSAL

R 325.2701
Source: 1997 AACS.

R 325.2702
Source: 1997 AACS.

R 325.2721
Source: 1997 AACS.

R 325.2722
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R 325.2723
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R 325.2731
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R 325.2764
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R 325.2765
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R 325.2766
Source: 1997 AACS.

R 325.2767
Source: 1997 AACS.

R 325.2671 "Control sample" defined.
Rule 1. "Control sample" means a sample of known concentration that is used to verify the calibration and accuracy of a given analytical method.
History: 1993 MR 4, Eff. May 5, 1993; 2005 MR 9, Eff. May 23, 2005.

R 325.2672 Tests; application; expression of results; filing.
Rule 2. (1) Tests to determine the presence or concentration, or both, of alcohol or other drugs, or both, may be

applied to blood, urine, or other biological samples. Results of blood alcohol analysis shall be expressed in percent weight of ethyl alcohol (weight per unit volume) equivalent to grams per 100 milliliters. Results of urine alcohol analysis shall be expressed as weight per unit volume of ethyl alcohol, equivalent to either grams per 100 milliliters, or grams per 67 milliliters. Where applicable, results of analysis for drugs or other volatiles shall be expressed as weight per unit volume.
(2) Serum or plasma alcohol concentrations shall be expressed as an equivalent whole blood alcohol concentration.
(3) Tests to determine the concentration of alcohol may be applied to nonbiological samples. Results shall be expressed in percent volume of ethyl alcohol (volume per unit volume).
(4) At least 1 copy of the written method or methods or techniques that are utilized in the laboratory shall be on file in that laboratory.
History: 1993 MR 4, Eff. May 5, 1993; 2005 MR 9, Eff. May 23, 2005.

R 325.2673 Acceptable techniques.
Rule 3. The following are examples of acceptable techniques, analyzers, and kits for determining the presence or concentration, or both, of alcohol and other drugs in blood, urine, or other various matrices or media:
(a) Direct distillation/dichromate oxidation methods as follows:
(i) "Dubowski and Withrow," proc. Am. acad for sci, 2:323, 1952.
(ii) "Shupe and Dubowski," Am J clin path., 22:901, 1952.
(b) Gas chromatograph method using a gas chromatograph that has satisfactory accuracy, precision, sensitivity, and a suitable column for direct injection or head-space gas chromatography for ethyl alcohol and other volatiles.
(c) Gas chromatography/mass spectrometry method using a gas chromatograph and mass spectrometer that have satisfactory accuracy, precision, sensitivity, and a suitable column for direct injection or head-space gas chromatography for identification of drugs or compounds other than ethanol.
(d) Spectrophotometric methods as follows:
(i) Williams, Louis A. CRC Manual of Analytical Toxicology, 1971, p. 309
(ii) Freireich A. et al. CRC Methodology for Analytical Toxicology, 1975, pp. 67-69.
(e) Enzymatic and immunological methods as follows:
(i) "Stiles, et al.," Am J clin path., 46:608, 1966.
(ii) "Bonnichsen and Lundgren," J Acta pharmacol toxicol., 13:256, 1957.
(f) Analyzers and kits as follows:
(i) CalBiochem-Behring ethyl alcohol kit.
(ii) Dupont ACA instrument using ethyl alcohol (ALC) kit.
(iii) Sigma diagnostics alcohol (ethanol) kit.
(iv) Abbott diagnostics TDx ethanol kit.
(v) Abbott diagnostics AxSym Autoanalyzer reagent systems**.**
History: 1993 MR 4, Eff. May 5, 1993; 2005 MR 9, Eff. May 23, 2005.

R 325.2674 Calibration.
Rule 4. Calibration of the method or equipment used to test for alcohol or other drugs for which quantitative analysis is performed in blood, urine, or other biological or nonbiological samples shall be verified through the use of control samples each day that tests are run. Results of the control samples shall be documented and retained by the laboratory for a minimum of 1 year.
History: 1993 MR 4, Eff. May 5, 1993; 2005 MR 9, Eff. May 23, 2005.

R 325.2775
Source: 1997 AACS.

R 325.2776
Source: 1997 AACS.

R 325.2777
Source: 1997 AACS.

R 325.2778
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R 325.2781
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R 325.2786
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R 325.2787
Source: 1997 AACS.

R 325.2788
Source: 1997 AACS.

R 325.2789
Source: 1997 AACS.

DEPARTMENT OF COMMUNITY HEALTH

OFFICE OF THE DIRECTOR

CERTIFICATION OF SPECIAL SERVICES IN HOSPITALS

R 325.3001
Source: 1997 AACS.

R 325.3051
Source: 1997 AACS.

R 325.3053
Source: 1997 AACS.

R 325.3055
Source: 1997 AACS.

R 325.3057
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R 325.3058
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R 325.3101
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R 325.3103
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R 325.3105
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R 325.3107
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R 325.3118
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R 325.3119
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R 325.3141
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R 325.3185
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R 325.3187
Source: 1997 AACS.

OFFICE OF VITAL AND HEALTH STATISTICS

COMPLETION, FILING, AND REGISTRATION OF VITAL RECORDS DOCUMENTS

R 325.3201
Source: 1981 AACS.

R 325.3202
Source: 1981 AACS.

R 325.3203
Source: 1981 AACS.

R 325.3204
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R 325.3205
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R 325.3206
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R 325.3220
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R 325.3221
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VITAL RECORDS INSPECTION AND DISCLOSURE

R 325.3231
Source: 1983 AACS.

R 325.3232
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R 325.3233
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R 325.3234
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R 325.3235
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R 325.3236
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AMENDMENTS TO VITAL RECORDS

R 325.3251
Source: 1981 AACS.

R 325.3252
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R 325.3253
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R 325.3254
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R 325.3255
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R 325.3267
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DIVISION OF CHILD HEALTH

HEARING SCREENING AND TESTS

R 325.3271
Source: 2004 AACS.

R 325.3272
Source: 2004 AACS.

R 325.3273
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R 325.3274
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R 325.3275
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R 325.3276
Source: 2004 AACS.

DEPARTMENT OF AGRICULTURE

BUREAU OF ENVIRONMENTAL AND OCCUPATIONAL HEALTH

MOBILE HOME PARKS AND SEASONAL MOBILE HOME PARKS

PART 1. GENERAL PROVISIONS

R 325.3311
Source: 1984 AACS.

R 325.3312
Source: 1980 AACS.

R 325.3313
Source: 1980 AACS.

R 325.3314
Source: 1984 AACS.

PART 2. WATER SUPPLY SYSTEMS

R 325.3321
Source: 1984 AACS.

PART 3. SEWAGE COLLECTION AND DISPOSAL SYSTEMS

R 325.3331
Source: 1984 AACS.

R 325.3332
Source: 1984 AACS.

R 325.3333
Source: 1980 AACS.

R 325.3334
Source: 1984 AACS.

R 325.3335
Source: 1984 AACS.

PART 4. DRAINAGE

R 325.3341
Source: 1984 AACS.

R 325.3342
Source: 1984 AACS.

R 325.3343
Source: 1984 AACS.

R 325.3344

Source: 1980 AACS.

R 325.3345
Source: 1980 AACS.

R 325.3346
Source: 1980 AACS.

R 325.3347
Source: 1984 AACS.

R 325.3348
Source: 1980 AACS.

R 325.3349
Source: 1980 AACS.

PART 5. GARBAGE AND RUBBISH STORAGE AND DISPOSAL

R 325.3351
Source: 1984 AACS.

R 325.3352
Source: 1984 AACS.

R 325.3353
Source: 1984 AACS.

R 325.3354
Source: 1984 AACS.

PART 6. INSECT AND RODENT CONTROL

R 325.3361
Source: 1984 AACS.

R 325.3362
Source: 1984 AACS.

R 325.3363
Source: 1980 AACS.

PART 7. GENERAL OPERATION, MAINTENANCE, AND SAFETY

R 325.3371
Source: 1984 AACS.

R 325.3372
Source: 1984 AACS.

R 325.3373
Source: 1984 AACS.

R 325.3374
Source: 1984 AACS.

PART 8. COORDINATION OF APPROVALS FOR CONSTRUCTION

R 325.3381
Source: 1984 AACS.

R 325.3382
Source: 1984 AACS.

R 325.3383
Source: 1980 AACS.

R 325.3384
Source: 1984 AACS.

R 325.3385
Source: 1984 AACS.

PART 9. CERTIFICATION OF COMPLIANCE

R 325.3391
Source: 1984 AACS.

R 325.3392
Source: 1984 AACS.

R 325.3393
Source: 1984 AACS.

DEPARTMENT OF COMMUNITY HEALTH
BUREAU OF DISEASE CONTROL AND LABORATORY SERVICES
VENEREAL DISEASE

R 325.3401
Source: 1997 AACS.

R 325.3402
Source: 1997 AACS.

R 325.3403
Source: 1997 AACS.

R 325.3404
Source: 1997 AACS.

R 325.3405
Source: 1997 AACS.

R 325.3406
Source: 1997 AACS.

R 325.3407
Source: 1997 AACS.

R 325.3408
Source: 1997 AACS.

R 325.3409
Source: 1997 AACS.

R 325.3410
Source: 1981 AACS.

DEPARTMENT OF CONSUMER AND INDUSTRY SERVICES

OCCUPATIONAL HEALTH STANDARDS COMMISSION

EMPLOYEE MEDICAL RECORDS AND TRADE SECRETS

R 325.3451
Source: 1983 AACS.

R 325.3452
Source: 1998-2000 AACS.

R 325.3453
Source: 1998-2000 AACS.

R 325.3454
Source: 1983 AACS.

R 325.3455
Source: 1983 AACS.

R 325.3456
Source: 1993 AACS.

R 325.3457
Source: 1993 AACS.

R 325.3458
Source: 1983 AACS.

R 325.3459
Source: 1993 AACS.

R 325.3460
Source: 1993 AACS.

R 325.3461
Source: 1993 AACS.

R 325.3462
Source: 1983 AACS.

R 325.3463
Source: 1983 AACS.

R 325.3464
Source: 1993 AACS.

R 325.3465
Source: 1983 AACS.

R 325.3466
Source: 1983 AACS.

R 325.3467

Source: 1993 AACS.

R 325.3468
Source: 1983 AACS.

R 325.3469
Source: 1983 AACS.

R 325.3470
Source: 1983 AACS.

R 325.3471
Source: 1993 AACS.

R 325.3472
Source: 1993 AACS.

R 325.3472a
Source: 1993 AACS.

R 325.3473
Source: 1993 AACS.

R 325.3474
Source: 1983 AACS.

R 325.3475
Source: 1983 AACS.

R 325.3476
Source: 1998-2000 AACS.

DEPARTMENT OF COMMUNITY HEALTH

BUREAU OF DISEASE CONTROL AND LABORATORY SERVICES

IMMUNIZATIONS IN SCHOOLS, DAY CARE CENTERS, AND CAMPING PROGRAMS

R 325.3501
Source: 1997 AACS.

R 325.3502
Source: 1997 AACS.

R 325.3503
Source: 1997 AACS.

R 325.3504
Source: 1997 AACS.

R 325.3505
Source: 1997 AACS.

R 325.3506
Source: 1997 AACS.

R 325.3507
Source: 1997 AACS.

R 325.3508
Source: 1997 AACS.

R 325.3509
Source: 1997 AACS.

R 325.3510
Source: 1997 AACS.

R 325.3511
Source: 1997 AACS.

R 325.3512
Source: 1997 AACS.

R 325.3513
Source: 1997 AACS.

DEPARTMENT OF CONSUMER AND INDUSTRY SERVICES
BUREAU OF ENVIRONMENTAL AND OCCUPATIONAL HEALTH
ASBESTOS CONTRACTOR LICENSING

R 325.3551
Source: 1988 AACS.

R 325.3553
Source: 1988 AACS.

R 325.3555
Source: 1988 AACS.

R 325.3557
Source: 1988 AACS.

R 325.3559
Source: 1988 AACS.

R 325.3561
Source: 1988 AACS.

R 325.3563
Source: 1988 AACS.

R 325.3565
Source: 1988 AACS.

R 325.3567
Source: 1988 AACS.

R 325.3569
Source: 1988 AACS.

R 325.3571
Source: 1988 AACS.

AGRICULTURAL LABOR CAMPS

R 325.3601
Source: 1989 AACS.

R 325.3603
Source: 1989 AACS.

R 325.3605
Source: 1989 AACS.

R 325.3607
Source: 1989 AACS.

R 325.3609
Source: 1989 AACS.

R 325.3611
Source: 1989 AACS.

R 325.3613
Source: 1989 AACS.

R 325.3615
Source: 1989 AACS.

R 325.3617
Source: 1989 AACS.

R 325.3619
Source: 1989 AACS.

R 325.3621
Source: 1989 AACS.

R 325.3623
Source: 1989 AACS.

R 325.3625
Source: 1989 AACS.

R 325.3627
Source: 1989 AACS.

R 325.3629
Source: 1989 AACS.

R 325.3631
Source: 1989 AACS.

R 325.3633
Source: 1989 AACS.

R 325.3635
Source: 1989 AACS.

R 325.3637
Source: 1989 AACS.

R 325.3639
Source: 1989 AACS.

R 325.3641
Source: 1989 AACS.

R 325.3643
Source: 1989 AACS.

R 325.3699
Source: 1989 AACS.

DEPARTMENT OF COMMUNITY HEALTH

OFFICE OF THE DIRECTOR

TOXIC SUBSTANCE LOAN PROGRAM

R 325.3701
Source: 1997 AACS.

R 325.3702
Source: 1997 AACS.

R 325.3703
Source: 1997 AACS.

R 325.3704
Source: 1997 AACS.

R 325.3705
Source: 1997 AACS.

R 325.3706
Source: 1997 AACS.

R 325.3707
Source: 1997 AACS.

R 325.3708
Source: 1997 AACS.

R 325.3709
Source: 1997 AACS.

DEPARTMENT OF CONSUMER AND INDUSTRY SERVICES

BUREAU OF HEALTH SYSTEMS

FREESTANDING SURGICAL OUTPATIENT FACILITIES

R 325.3801
Source: 2001 AACS.

R 325.3802
Source: 2001 AACS.

R 325.3803

Source: 2001 AACS.

R 325.3811
Source: 2001 AACS.

R 325.3812
Source: 2001 AACS.

R 325.3815
Source: 2001 AACS.

R 325.3816
Source: 2001 AACS.

R 325.3817
Source: 2001 AACS.

R 325.3818
Source: 2001 AACS.

R 325.3819
Source: 2001 AACS.

R 325.3811
Source: 2001 AACS.

R 325.3826
Source: 2002 AACS.

R 325.3832
Source: 2001 AACS.

R 325.3835
Source: 2001 AACS.

R 325.3851
Source: 2001 AACS.

R 325.3857
Source: 2001 AACS.

R 325.3866
Source: 2001 AACS.

R 325.3867
Source: 2001 AACS.

R 325.3868
Source: 2001 AACS.

R 325.3868a
Source: 2001 AACS.

OFFICE OF SUBSTANCE ABUSE SERVICES

SUBSTANCE ABUSE SERVICES PROGRAMS

R 325.4001

Source: 1997 AACS.

R 325.4002
Source: 1997 AACS.

R 325.4003
Source: 1997 AACS.

R 325.4004
Source: 1997 AACS.

R 325.4005
Source: 1997 AACS.

R 325.4006
Source: 1997 AACS.

R 325.4007
Source: 1997 AACS.

R 325.4008
Source: 1997 AACS.

R 325.4009
Source: 1997 AACS.

R 325.4010
Source: 1997 AACS.

R 325.4011
Source: 1997 AACS.

R 325.4012
Source: 1997 AACS.

R 325.4013
Source: 1997 AACS.

R 325.4014
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R 325.4015
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R 325.4016
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R 325.4017
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R 325.4018
Source: 1997 AACS.

R 325.4019
Source: 1997 AACS.

R 325.4021
Source: 1997 AACS.

R 325.4022
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R 325.4023
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R 325.4024
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R 325.4028
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R 325.4031
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R 325.4037
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R 325.4038
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R 325.4041
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R 325.4042
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R 325.4046
Source: 1997 AACS.

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Source: 1997 AACS.

R 325.4048
Source: 1997 AACS.

R 325.4051
Source: 1997 AACS.

R 325.4052
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R 325.4062
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R 325.4064
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R 325.4065
Source: 1997 AACS.

R 325.4066

Source: 1997 AACS.

R 325.4067
Source: 1997 AACS.

R 325.4071
Source: 1997 AACS.

R 325.4081
Source: 1997 AACS.

R 325.4082
Source: 1997 AACS.

R 325.4083
Source: 1997 AACS.

R 325.4084
Source: 1997 AACS.

PROGRAM MATCH REQUIREMENTS

R 325.4151
Source: 1981 AACS.

R 325.4152
Source: 1981 AACS.

R 325.4153
Source: 1981 AACS.

R 325.4154
Source: 1997 AACS.

R 325.4155
Source: 1981 AACS.

R 325.4156
Source: 1981 AACS.

DEPARTMENT OF CONSUMER AND INDUSTRY SERVICES
DIVISION OF RADIOLOGICAL HEALTH
IONIZING RADIATION

PART 14. MAMMOGRAPHY

GENERAL PROVISIONS

R 325.5601
Source: 1993 AACS.

R 325.5602
Source: 1993 AACS.

R 325.5603
Source: 1993 AACS.

MAMMOGRAPHY AUTHORIZATION

R 325.5605
Source: 1993 AACS.

R 325.5606
Source: 1993 AACS.

R 325.5607
Source: 1993 AACS.

R 325.5608
Source: 1993 AACS.

R 325.5609
Source: 1993 AACS.

R 325.5610
Source: 1993 AACS.

R 325.5611
Source: 1993 AACS.

R 325.5612
Source: 1993 AACS.

R 325.5613
Source: 1993 AACS.

MAMMOGRAPHY SUPERVISOR

R 325.5617
Source: 1993 AACS.

R 325.5618
Source: 1993 AACS.

R 325.5619
Source: 1993 AACS.

OPERATORS OF MAMMOGRAPHY EQUIPMENT

R 325.5621
Source: 1993 AACS.

R 325.5622
Source: 1993 AACS.

R 325.5623
Source: 1993 AACS.

R 325.5624
Source: 1993 AACS.

R 325.5625

Source: 1993 AACS.

RADIATION PHYSICIST

R 325.5631
Source: 1993 AACS.

R 325.5632
Source: 1993 AACS.

R 325.5633
Source: 1993 AACS.

X-RAY EQUIPMENT

R 325.5637
Source: 1993 AACS.

R 325.5638
Source: 1993 AACS.

R 325.5639
Source: 1993 AACS.

R 325.5640
Source: 1993 AACS.

R 325.5641
Source: 1993 AACS.

R 325.5642
Source: 1993 AACS.

R 325.5643
Source: 1993 AACS.

R 325.5644
Source: 1993 AACS.

R 325.5645
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R 325.5646
Source: 1993 AACS.

R 325.5647
Source: 1993 AACS.

R 325.5648
Source: 1993 AACS.

R 325.5649
Source: 1993 AACS.

R 325.5650
Source: 1993 AACS.

R 325.5651

Source: 1993 AACS.

R 325.5652
Source: 1993 AACS.

R 325.5655
Source: 1993 AACS.

R 325.5656
Source: 1993 AACS.

QUALITY CONTROL

R 325.5659
Source: 1993 AACS.

R 325.5660
Source: 1993 AACS.

R 325.5661
Source: 1993 AACS.

R 325.5662
Source: 1993 AACS.

R 325.5663
Source: 1993 AACS.

R 325.5664
Source: 1993 AACS.

R 325.5665
Source: 1993 AACS.

DEPARTMENT OF ENVIRONMENTAL QUALITY
DRINKING WATER AND RADIOLOGICAL PROTECTION DIVISION
RADIOACTIVE MATERIAL TRANSPORTATION

R 325.5801
Source: 1997 AACS.

R 325.5802
Source: 1997 AACS.

R 325.5803
Source: 1997 AACS.

R 325.5804
Source: 1997 AACS.

R 325.5805
Source: 1997 AACS.

R 325.5806
Source: 1997 AACS.

R 325.5807
Source: 1997 AACS.

R 325.5808
Source: 1997 AACS.

R 325.5809
Source: 1997 AACS.

R 325.5810
Source: 1997 AACS.

BUREAU OF HEALTH CARE ADMINISTRATION

FREESTANDING SURGICAL OUTPATIENT FACILITIES DIFFERENTIATED FROM PRIVATE PRACTICE OFFICES

R 325.6001
Source: 1980 AACS.

R 325.6002
Source: 1980 AACS.

DEPARTMENT OF COMMUNITY HEALTH AND INSURANCE BUREAU

HEALTH MAINTENANCE ORGANIZATIONS

PART 1. GENERAL PROVISIONS

R 325.6101
Source: 1988 AACS.

R 325.6105
Source: 1988 AACS.

R 325.6110
Source: 1988 AACS.

R 325.6115
Source: 1988 AACS.

R 325.6120
Source: 1997 AACS.

R 325.6125
Source: 1988 AACS.

R 325.6130
Source: 1988 AACS.

R 325.6135
Source: 1988 AACS.

PART 2. STATE ADMINISTRATION

R 325.6201

Source: 1997 AACS.

R 325.6205
Source: 1988 AACS.

R 325.6210
Source: 1988 AACS.

R 325.6215
Source: 1997 AACS.

R 325.6220
Source: 1997 AACS.

R 325.6225
Source: 1997 AACS.

R 325.6230
Source: 1988 AACS.

R 325.6235
Source: 1988 AACS.

R 325.6240
Source: 1988 AACS.

R 325.6245
Source: 1988 AACS.

R 325.6250
Source: 1997 AACS.

R 325.6255
Source: 1997 AACS.

R 325.6260
Source: 1997 AACS.

R 325.6265
Source: 1997 AACS.

R 325.6270
Source: 1988 AACS.

R 325.6275
Source: 1988 AACS.

R 325.6280
Source: 1997 AACS.

R 325.6285
Source: 1988 AACS.

R 325.6290
Source: 1988 AACS.

PART 3. BUSINESS AND OPERATIONAL REQUIREMENTS

R 325.6301
Source: 1988 AACS.

R 325.6305
Source: 1988 AACS.

R 325.6310
Source: 1988 AACS.

R 325.6315
Source: 1988 AACS.

R 325.6320
Source: 1997 AACS.

R 325.6325
Source: 1997 AACS.

R 325.6330
Source: 1988 AACS.

R 325.6335
Source: 1988 AACS.

R 325.6340
Source: 1988 AACS.

R 325.6345
Source: 1988 AACS.

R 325.6350
Source: 1988 AACS.

R 325.6355
Source: 1988 AACS.

R 325.6360
Source: 1988 AACS.

R 325.6365
Source: 1988 AACS.

PART 4. SUBSCRIBER CONTRACTS, COVERAGE, AND RELATED REQUIREMENTS

R 325.6401
Source: 1988 AACS.

R 325.6405
Source: 1988 AACS.

R 325.6410
Source: 1988 AACS.

R 325.6415
Source: 1988 AACS.

R 325.6420
Source: 1988 AACS.

R 325.6425
Source: 1988 AACS.

R 325.6430
Source: 1988 AACS.

PART 5. MARKETING AND ENROLLMENT

R 325.6501
Source: 1988 AACS.

R 325.6505
Source: 1988 AACS.

R 325.6510
Source: 1988 AACS.

R 325.6515
Source: 1997 AACS.

PART 6. STANDARDS FOR SERVICES, STAFFING, QUALITY ASSURANCE, AND UTILIZATION REVIEW

R 325.6601
Source: 1988 AACS.

R 325.6605
Source: 1988 AACS.

R 325.6610
Source: 1988 AACS.

R 325.6615
Source: 1988 AACS.

R 325.6620
Source: 1988 AACS.

R 325.6625
Source: 1988 AACS.

R 325.6635
Source: 1988 AACS.

PART 7. FACILITY STANDARDS

R 325.6701
Source: 1988 AACS.

R 325.6702
Source: 1988 AACS.

R 325.6705
Source: 1997 AACS.

R 325.6710
Source: 1991 AACS.

R 325.6715

Source: 1988 AACS.

R 325.6720
Source: 1988 AACS.

R 325.6725
Source: 1988 AACS.

R 325.6730
Source: 1988 AACS.

R 325.6735
Source: 1988 AACS.

R 325.6740
Source: 1988 AACS.

R 325.6745
Source: 1988 AACS.

R 325.6750
Source: 1988 AACS.

R 325.6755
Source: 1988 AACS.

R 325.6760
Source: 1997 AACS.

R 325.6765
Source: 1997 AACS.

R 325.6770
Source: 1997 AACS.

R 325.6775
Source: 1997 AACS.

R 325.6780
Source: 1988 AACS.

R 325.6785
Source: 1988 AACS.

R 325.6790
Source: 1988 AACS.

R 325.6795
Source: 1988 AACS.

PART 8. ENROLLEE CLINICAL RECORDS; REPORTS AND INSPECTIONS

R 325.6801
Source: 1988 AACS.

R 325.6805

Source: 1988 AACS.

R 325.6810
Source: 1988 AACS.

R 325.6815
Source: 1988 AACS.

R 325.6820
Source: 1997 AACS.

R 325.6825
Source: 1988 AACS.

R 325.6830
Source: 1988 AACS.

R 325.6835
Source: 1988 AACS.

PART 9. HEALTH MAINTENANCE ORGANIZATION INCLUSION IN HEALTH BENEFIT PLANS

R 325.6901
Source: 1988 AACS.

R 325.6905
Source: 1988 AACS.

R 325.6910
Source: 1988 AACS.

R 325.6925
Source: 1988 AACS.

R 325.6930
Source: 1988 AACS.

R 325.6935
Source: 1988 AACS.

R 325.6950
Source: 1988 AACS.

R 325.6955
Source: 1988 AACS.

R 325.6960
Source: 1988 AACS.

R 325.6965
Source: 1997 AACS.

DEPARTMENT OF COMMUNITY HEALTH
OFFICE OF VITAL AND HEALTH STATISTICS
DISINTERMENT—REINTERMENT

R 325.8051
Source: 1982 AACS.

R 325.8052
Source: 1982 AACS.

R 325.8053
Source: 1982 AACS.

R 325.8054
Source: 1982 AACS.

R 325.8055
Source: 1982 AACS.

R 325.8056
Source: 1982 AACS.

R 325.8057
Source: 1982 AACS.

LABORATORY AND EPIDEMIOLOGICAL SERVICES ADMINISTRATION

DISEASE SURVEILLANCE AND CONTROL

R 325.9001
Source: 1997 AACS.

R 325.9002
Source: 1997 AACS.

R 325.9003
Source: 1997 AACS.

R 325.9004
Source: 1997 AACS.

R 325.9005
Source: 1997 AACS.

R 325.9006
Source: 1997 AACS.

R 325.9007
Source: 1997 AACS.

R 325.9008
Source: 1997 AACS.

R 325.9009
Source: 1997 AACS.

R 325.9010
Source: 1997 AACS.

R 325.9011
Source: 1997 AACS.

R 325.9012
Source: 1981 AACS.

BUREAU OF LABORATORY AND EPIDEMIOLOGICAL SERVICES

DEFINITION OF "INFECTIOUS AGENT"

R 325.9031
Source: 1987 AACS.

DIVISION OF RESEARCH AND DEVELOPMENT

CHRONIC DISEASE PREVENTION AND CONTROL LIST

R 325.9041
Source: 1989 AACS.

OFFICE OF THE STATE REGISTRAR AND CENTER FOR HEALTH STATISTICS

CANCER REPORTING

R 325.9050
Source: 2004 AACS.

R 325.9051
Source: 2004 AACS.

R 325.9052
Source: 2004 AACS.

R 325.9053
Source: 1985 AACS.

R 325.9054
Source: 1985 AACS.

R 325.9055
Source: 1985 AACS.

R 325.9056
Source: 1985 AACS.

R 325.9057
Source: 1985 AACS.

CENTER FOR HEALTH PROMOTION

SPINAL CORD AND TRAUMATIC BRAIN INJURY REPORTING

R 325.9061
Source: 1993 AACS.

R 325.9062
Source: 1993 AACS.

R 325.9063
Source: 1993 AACS.

R 325.9064
Source: 1993 AACS.

R 325.9065
Source: 1993 AACS.

R 325.9066
Source: 1993 AACS.

R 325.9067
Source: 1993 AACS.

BIRTH DEFECTS REPORTING

R 325.9071
Source: 1991 AACS.

R 325.9072
Source: 1991 AACS.

R 325.9073
Source: 1991 AACS.

R 325.9074
Source: 1991 AACS.

R 325.9075
Source: 1991 AACS.

R 325.9076
Source: 1991 AACS.

HEALTH LEGISLATION AND POLICY DEVELOPMENT

BLOOD LEAD ANALYSIS REPORTING

R 325.9081
Source: 1997 AACS.

R 325.9082
Source: 1997 AACS.

R 325.9083
Source: 1997 AACS.

R 325.9084
Source: 1997 AACS.

R 325.9085
Source: 1997 AACS.

R 325.9086
Source: 1997 AACS.

R 325.9087
Source: 1997 AACS.

BUREAU OF HEALTH SYSTEMS

CERTIFICATE OF NEED

PART 1. GENERAL PROVISIONS

R 325.9101
Source: 1996 AACS.

R 325.9103
Source: 1996 AACS.

R 325.9105
Source: 1996 AACS.

R 325.9109
Source: 1996 AACS.

R 325.9121
Source: 1996 AACS.

R 325.9123
Source: 1996 AACS.

R 325.9125
Source: 1996 AACS.

PART 2. LETTERS OF INTENT; APPLICATIONS; REVIEWS

R 325.9201
Source: 1996 AACS.

R 325.9203
Source: 1996 AACS.

R 325.9204
Source: 1996 AACS.

R 325.9205
Source: 1996 AACS.

R 325.9206
Source: 1996 AACS.

R 325.9207
Source: 1996 AACS.

R 325.9208
Source: 1996 AACS.

R 325.9215
Source: 1996 AACS.

R 325.9227
Source: 1996 AACS.

R 325.9229
Source: 1996 AACS.

PART 3. APPROVAL AND ISSUANCE; DISAPPROVAL

R 325.9301
Source: 1996 AACS.

R 325.9303
Source: 1996 AACS.

PART 4. TERMS AND CONDITIONS

R 325.9401
Source: 1986 AACS.

R 325.9403
Source: 1996 AACS.

R 325.9413
Source: 1996 AACS.

R 325.9415
Source: 1996 AACS.

R 325.9417
Source: 1996 AACS.

R 325.9419
Source: 1996 AACS.

PART 5. ADMINISTRATIVE HEARINGS

R 325.9501
Source: 1996 AACS.

R 325.9503
Source: 1996 AACS.

R 325.9505
Source: 1986 AACS.

R 325.9507
Source: 1996 AACS.

R 325.9509
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R 325.9511
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R 325.9523
Source: 1996 AACS.

R 325.9525
Source: 1996 AACS.

DEPARTMENT OF COMMUNITY HEALTH

HEALTH LEGISLATION AND POLICY DEVELOPMENT

LEAD HAZARD REMEDIATION

R 325.9901 Rescinded.
History: 1999 MR 8, Eff. Sep. 15, 1999; rescinded 2005 MR 7, Eff. Feb. 2, 2005.

R 325.9902 Rescinded.
History: 1999 MR 8, Eff. Sep. 15, 1999; rescinded 2005 MR 7, Eff. Feb. 2, 2005.

R 325.9903 Rescinded.
History: 1999 MR 8, Eff. Sep. 15, 1999; rescinded 2005 MR 7, Eff. Feb. 2, 2005.

R 325.9904 Rescinded.
History: 1999 MR 8, Eff. Sep. 15, 1999; rescinded 2005 MR 7, Eff. Feb. 2, 2005.

R 325.9905 Rescinded.
History: 1999 MR 8, Eff. Sep. 15, 1999; rescinded 2005 MR 7, Eff. Feb. 2, 2005.

R 325.9906 Rescinded.
History: 1999 MR 8, Eff. Sep. 15, 1999; rescinded 2005 MR 7, Eff. Feb. 2, 2005.

R 325.9907 Rescinded.
History: 1999 MR 8, Eff. Sep. 15, 1999; rescinded 2005 MR 7, Eff. Feb. 2, 2005.

R 325.9908 Rescinded.
History: 1999 MR 8, Eff. Sep. 15, 1999; rescinded 2005 MR 7, Eff. Feb. 2, 2005.

R 325.9909 Rescinded.
History: 1999 MR 8, Eff. Sep. 15, 1999; rescinded 2005 MR 7, Eff. Feb. 2, 2005.

R 325.9910 Rescinded.
History: 1999 MR 8, Eff. Sep. 15, 1999; rescinded 2005 MR 7, Eff. Feb. 2, 2005.

R 325.9911 Rescinded.
History: 1999 MR 8, Eff. Sep. 15, 1999; rescinded 2005 MR 7, Eff. Feb. 2, 2005.

R 325.9912 Rescinded.
History: 1999 MR 8, Eff. Sep. 15, 1999; rescinded 2005 MR 7, Eff. Feb. 2, 2005.

R 325.9913 Rescinded.
History: 1999 MR 8, Eff. Sep. 15, 1999; rescinded 2005 MR 7, Eff. Feb. 2, 2005.

R 325.9914 Rescinded.
History: 1999 MR 8, Eff. Sep. 15, 1999; rescinded 2005 MR 7, Eff. Feb. 2, 2005.

R 325.9915 Rescinded.
History: 1999 MR 8, Eff. Sep. 15, 1999; rescinded 2005 MR 7, Eff. Feb. 2, 2005.

R 325.9916 Rescinded.
History: 1999 MR 8, Eff. Sep. 15, 1999; rescinded 2005 MR 7, Eff. Feb. 2, 2005.

R 325.9917 Rescinded.
History: 1999 MR 8, Eff. Sep. 15, 1999; rescinded 2005 MR 7, Eff. Feb. 2, 2005.

R 325.9918 Rescinded.
History: 1999 MR 8, Eff. Sep. 15, 1999; rescinded 2005 MR 7, Eff. Feb. 2, 2005.

R 325.9919 Rescinded.
History: 1999 MR 8, Eff. Sep. 15, 1999; rescinded 2005 MR 7, Eff. Feb. 2, 2005.

R 325.9920 Rescinded.
History: 1999 MR 8, Eff. Sep. 15, 1999; rescinded 2005 MR 7, Eff. Feb. 2, 2005.

R 325.9921 Rescinded.
History: 1999 MR 8, Eff. Sep. 15, 1999; rescinded 2005 MR 7, Eff. Feb. 2, 2005.

R 325.9922 Rescinded.
History: 1999 MR 8, Eff. Sep. 15, 1999; rescinded 2005 MR 7, Eff. Feb. 2, 2005.

R 325.9923 Rescinded.
History: 1999 MR 8, Eff. Sep. 15, 1999; rescinded 2005 MR 7, Eff. Feb. 2, 2005.

R 325.9924 Rescinded.
History: 1999 MR 8, Eff. Sep. 15, 1999; rescinded 2005 MR 7, Eff. Feb. 2, 2005.

R 325.9925 Rescinded.
History: 1999 MR 8, Eff. Sep. 15, 1999; rescinded 2005 MR 7, Eff. Feb. 2, 2005.

HEALTH SERVICES ADMINISTRATION

SUPPLYING WATER TO THE PUBLIC

R 325.10102
Source: 2003 AACS.

R 325.10103
Source: 2003 AACS.

R 325.10104 Definitions; D, E.
Rule 104. As used in these rules:
(a) "Department" means the department of environmental quality or its authorized agent or representative.
(b) "Deviation" means an exception to a department rule establishing minimum standards or requirements issued in writing or as a condition to a permit to a supplier of water.
(c) "Direct filtration" means a series of processes, including coagulation and filtration, but excluding sedimentation, resulting in substantial particulate removal.
(d) "Director" means the director of environmental quality or his or her authorized agent or representative.

(e) "Disinfectant contact time" (T in CT calculations) means the time in minutes that it takes for water to move from the point of disinfectant application or the previous point of disinfectant residual measurement to a point at or before the point where residual disinfectant concentration is measured. Disinfectant contact time in pipelines shall be calculated based on plug flow by dividing the internal volume of the pipe by the maximum hourly flow rate through that pipe. Disinfectant contact time within mixing basins and storage reservoirs shall be determined by tracer studies or an equivalent demonstration.
(f) "Disinfection profile" means a summary of Giardia lamblia, and in certain cases, virus inactivation through the treatment plant.
(g) "Distribution system" means a system that consists of the following components through which water is distributed and used or intended for use for drinking or household purposes:
(i) Piping.
(ii) Transmission or distribution mains.
(iii) Pumps.
(iv) Pumping stations.
(v) Storage tanks.
(vi) Controls.
(vii) Associated appurtenances.
(h) "Division" means the drinking water and radiological protection division of the department.
(i) "Domestic or other non-distribution system plumbing problem" means a coliform contamination problem in a public water system which has more than 1 service connection that is limited to the specific service connection from which the coliform positive sample was taken.
(j) "Drawdown" means the difference between the static water level and the pumping water level in a well or, for a flowing artesian well, the difference between an established datum above ground and the pumping water level.
(k) "Effective corrosion inhibitor residual," for the purpose of lead and copper control, means a concentration that is sufficient to form a passivating film on the interior walls of a pipe.
(l) "Emergency" means a situation in a public water supply that results in contamination, loss of pressure, lack of adequate supply of water, or other condition that poses an imminent hazard or danger to the public health.
(m) "Enhanced coagulation" means the addition of sufficient coagulant for improved removal of disinfection byproduct precursors by conventional filtration treatment.
(n) "Enhanced softening" means the improved removal of disinfection byproduct precursors by precipitative softening.
(o) "EPA" means the United States environmental protection agency.
(p) "Equivalent certificate" means a certificate which is issued to certain individuals. Individuals eligible for an equivalent certificate do not hold a current certificate but were issued certification before the effective date of the current rules.
(q) "Established ground surface" means the intended or actual finished grade or elevation of the surface of the ground at the site of a water supply facility.
(r) "Exemption" means an order, with appropriate conditions, time schedules, and compliance requirements, that is issued by the director to a supplier of water permitting a public water supply to be in temporary noncompliance with a state drinking water standard, including a specified treatment technique.
History: 1954 ACS 94, Eff. Jan. 12, 1978; 1979 AC; 1991 MR 11, Eff.
Nov. 22, 1991; 1994 MR 12, Eff. Jan. 5, 1995; 1998 MR 3, Eff. Apr, 8, 1998; 2000 MR 19, Eff. Dec. 8, 2000; 2003 MR 2, Eff. Jan. 29, 2003; 2005 MR 6, Eff.Apr. 6, 2005.

R 325.10105
Source: 2003 AACS.

R 325.10106
Source: 2003 AACS.

R 325.10107 Definitions; P, R.
Rule 107. As used in these rules:
(a) "Permit" means a public water supply construction permit that is issued to a supplier of water by the department under the provisions of section 4 of the act.
(b) "Person" means an individual, partnership, copartnership, cooperative, firm, company, public or private

association or corporation, political subdivision, agency of the state, agency of the federal government, trust, estate, joint structure company, or any other legal entity, or their legal representative, agent, or assignee.
(c) "Pitless adapter" means a device or assembly of parts which permits water to pass through the wall of a well casing or extension of a well casing and which provides access to the well and to the parts of the system within the well in a manner that prevents the entrance of contaminants into the well and the water produced.
(d) "Plans and specifications" means drawings, data, and a true description or representation of an entire waterworks system or parts of the system as it exists or is to be constructed, and a statement of how a waterworks system shall be operated.
(e) "Point-of-entry treatment device (POE)" means a treatment device applied to the drinking water entering a house or building for the purpose of reducing contaminants in the drinking water distributed throughout the house or building.
(f) "Point-of-use treatment devise (POU)" means a treatment device applied to a single tap used for the purpose of reducing contaminants in drinking water at that 1 tap.
(g) "Political subdivision" means a city, village, township, charter township, county, district, authority, or portion or combination of any of the entities specified in this subdivision.
(h) "PQL" means the practical quantitation levels. The PQL is the lowest concentration that can be reliably achieved by well-operated laboratories within specified limits of precision and accuracy during routine laboratory operating conditions.
(i) "Production well" means a well that has been approved for use for a public water supply in accordance with the provisions of part 8 of these rules.
(j) "Public hearing" means a hearing which is conducted by the director of the department on matters relating to the functions and responsibilities of the division and which seeks public input relevant to such functions and responsibilities.
(k) "Public water supply" or "public water system" means a waterworks system that provides water for drinking or household purposes to persons other than the supplier of the water, and does not include either of the following:
(i) A waterworks system that supplies water to only 1 living unit.
(ii) A waterworks system that consists solely of customer site piping.
(l) "Pumping water level" means the distance measured from an established datum at or above ground level to the water surface in a well being pumped at a known rate for a known period of time.
(m) "Rated treatment capacity" means 1 or any combination of the following capacities when water treatment is practiced:
(i) Rated capacity from an approved surface water supply, ground water supply under the direct influence of surface water, or complete treatment system as contained in R 325.11006.
(ii) Firm capacity from an approved ground water supply where firm capacity means the production capability of each respective component of the waterworks system with the largest well, pump, or treatment unit out of service.
(iii) Available capacity obtained under contract and capable of delivery from another approved public water supply.
(n) "Raw water" means water that is obtained from a source by a public water supply before a supplier of water provides any treatment or distributes the water to its customers.
(o) "Regional administrator" means the EPA region V administrator.
(p) "Regulated VOCs" means a group of volatile organic chemicals for which state drinking water standards have been promulgated, but does not include total trihalomethanes.
(q) "Removed from service" means physically disconnected from the waterworks system in a manner that would prevent the inadvertent use of the well and would require specific authorization from the supplier of water to reconnect.
(r) "Repeat sample" means a sample that is collected and analyzed in response to a previous coliform-positive sample.
(s) "Resident" means an individual who owns or occupies a living unit.
(t) "Routine sample" means a water sample that is collected and analyzed to meet the monitoring requirements for total coliform, as outlined in the written sampling plan.
History: 1954 ACS 94, Eff. Jan. 12, 1978; 1979 AC; 1989 MR 8, Eff.Sept. 13, 1989; 1991 MR 11, Eff. Nov. 22, 1991; 1994 MR 12, Eff. Jan. 5, 1995; 2000 MR 19 Eff. Dec. 8, 2000; 2002 MR 10, Eff. May 30, 2002; 2005 MR 6, Eff. Apr. 6, 2005.

R 325.10108
Source: 2003 AACS.

R 325.10109
Source: 2003 AACS.

R 325.10110
Source: 1998-2000 AACS.

R 325.10111
Source: 1998-2000 AACS.

R 325.10112
Source: 2002 AACS.

R 325.10113
Source: 1998-2000 AACS.

R 325.10116
Source: 2002 AACS.

PART 3. VARIANCES AND EXEMPTIONS

R 325.10303
Source: 1991 AACS.

R 325.10304
Source: 1991 AACS.

R 325.10306
Source: 1991 AACS.

R 325.10308a
Source: 1984 AACS.

R 325.10308b Best available technology.
Rule 308b. (1) The department identifies the following as the best technology, treatment technique, or other means generally available for achieving compliance with the MCL:
(a) For organic contaminants in R 325.10604b and R 325.10604d, the best available technologies, treatment techniques, or other means available for achieving compliance with the MCLs are granular activated carbon (GAC), packed tower aeration (PTA), or oxidation (OX), as listed in table 1 of this rule.

Table 1 Best available technologies for organic contaminants

Contaminant	GAC	PTA	OX
Alachlor	x		
Aldicarb	x		
Aldicarb sulfone	x		
Aldicarb sulfoxide	x		
Atrazine	x		
Benzene	x	x	
Benzo(a)pyrene	x		
Carbofuran	x		
Carbon tetrachloride	x	x	
Chlordane	x		
Dalapon	x		
2,4-D	x		

Contaminant	GAC	PTA	OX
Di (2-ethylhexyl)adipate	x	x	
Di (2-ethylhexyl)phthalate	x		
Dibromochloropropane (DBCP)	x	x	
o-Dichlorobenzene	x	x	
para-Dichlorobenzene	x	x	
1,2-Dichloroethane	x	x	
1,1-Dichloroethylene	x	x	
cis-1,2-Dichloroethylene	x	x	
trans-1,2-Dichloroethylene	x	x	
Dichloromethane		x	
1,2-Dichloropropane	x	x	
Dinoseb	x		
Diquat	x		
Endothall	x		
Endrin	x		
Ethylbenzene	x	x	
Ethylene Dibromide (EDB)	x	x	
Glyphosate			x
Heptachlor	x		
Heptachlor epoxide	x		
Hexachlorobenzene	x		
Hexachlorocyclopentadiene	x	x	
Lindane	x		
Methoxychlor	x		
Monochlorobenzene	x	x	
Oxamyl (Vydate)	x		
Pentachlorophenol	x		
Picloram	x		
Polychlorinated biphenyls(PCB)	x		
Simazine	x		
Styrene	x	x	
2,3,7,8-TCDD (Dioxin)	x		
Tetrachloroethylene	x	x	
Toluene	x	x	
Toxaphene	x		
2,4,5-TP (Silvex)	x		
1,2,4-Trichlorobenzene	x	x	
1,1,1-Trichloroethane	x	x	
1,1,2-Trichloroethane	x	x	
Trichloroethylene	x	x	
Vinyl chloride		x	
Xylene	x	x	

(b) For inorganic contaminants in R 325.10604c, the best available technologies, treatment techniques, or other means available for achieving compliance with the MCLs are listed in table 2 of this rule. The affordable technology, treatment technique, or other means available to supplies serving 10,000 or fewer people for achieving compliance with the maximum contaminant level for arsenic are listed in table 3 of this rule.

Table 2 Best available technologies for inorganic contaminants

Chemical name	Best available technologies
Antimony	2,7
Arsenic[4]	1,2, 5,6,7,9,11[5]
Asbestos	2,3,8
Barium	5,6,7,9

Beryllium	1,2,5,6,7
Cadmium	2,5,6,7
Chromium	2,5,6[2],7
Cyanide	5,7,10
Mercury	2[1],4,6[1],7[1]
Nickel	5,6,7
Nitrate	5,7,9
Nitrite	5,7
Selenium	1,2[3],6,7,9
Thallium	1,5

[1] Best available technology only if influent Hg concentrations are 10 µg/l or less.
[2] Best available technology for chromium III only.
[3] Best available technology for selenium IV only.
[4] BATs for Arsenic V. Pre-oxidation may be required to convert Arsenic III to Arsenic V.
[5] To obtain high removals, iron to arsenic ratio shall be at least 20:1.

Key to best available technologies in table:
1 = activated alumina
2 = coagulation/filtration (not BAT for supplies with fewer than 500 service connections)
3 = direct and diatomite filtration
4 = granular activated carbon
5 = ion exchange
6 = lime softening (not BAT for supplies with fewer than 500 service connections)
7 = reverse osmosis
8 = corrosion control
9 = electrodialysis
10 = alkaline chlorination (pH greater than or equal to 8.5)
11 = oxidation/filtration

Table 3 Small supplies compliance technologies (SSCTs) for arsenic[1]

Small supply compliance technology	Affordable for listed small supply categories.[2]
Activated alumina (centralized)	All size categories.
Activated alumina (point-of-use)3	All size categories.
Coagulation/filtration	501-3,300, 3,301-10,000.
Coagulation-assisted microfiltration	501-3,300, 3,301-10,000.
Electrodialysis reversal	501-3,300, 3,301-10,000.
Enhanced coagulation/filtration	All size categories.
Enhanced lime softening (pH more than 10.5)	All size categories.
Ion exchange	All size categories.
Lime softening	501-3,300, 3,301-10,000.
Oxidation/filtration4	All size categories.
Reverse osmosis (centralized)	501-3,300, 3,301-10,000.
Reverse osmosis (point-of-use)3	All size categories.

[1] SSCTs for Arsenic V. Pre-oxidation may be required to convert Arsenic III to Arsenic V.
[2] Three categories of small systems are: (i) those serving 25 or more, but fewer than 501, (ii) those serving more than 500, but fewer than 3,301, and (iii) those serving more than 3,300, but fewer than 10,001.
[3] POU shall not be used to obtain a variance.
[4] To obtain high removals, iron to arsenic ratio shall be at least 20:1.

(c) For radionuclide contaminants in R 325.10603, the best available technologies, treatment techniques, or other means available for achieving compliance with the MCLs are listed in table 4 for all size supplies. The affordable technology, treatment technique, or other means available for achieving compliance with the maximum contaminant level are listed in table 5 for supplies serving 10,000 or fewer people as categorized in table 6.

Table 4 Best available technologies for radionuclide contaminants

Contaminant	Best available technologies.
Combined radium-226 and radium-228	Ion exchange, reverse osmosis, lime softening.
Uranium	Ion exchange, reverse osmosis, lime softening, coagulation/filtration.
Gross alpha particle activity (excluding radon and uranium)	Reverse osmosis.
Beta particle and proton radioactivity	Ion exchange, reverse osmosis.

Table 5 List of small supplies compliance technologies for radionuclides and limitations to use

Unit Technologies	Limitations (see footnotes)	Operator skill level required *	Raw water quality range and considerations.
1. Ion exchange	(a)	Intermediate	All ground waters.
2. Reverse osmosis (RO)	(b)	Advanced	Surface waters usually require pre-filtration.
3. Lime softening	(c)	Advanced	All waters.
4. Green sand filtration	(d)	Basic	
5. Co-precipitation and Barium sulfate	(e)	Intermediate to Advanced	Ground waters with suitable water quality.
6. Electrodialysis/ electrodialysis reversal	Not applicable	Basic to intermediate	All ground waters.
7. Pre-formed hydrous Manganese oxide filtration.	(f)	Intermediate	All ground waters.
8. Activated alumina	(a), (g)	Advanced	All ground waters; competing anion concentrations may affect regeneration frequency.
9. Enhanced coagulation/ filtration	(h)	Advanced	Can treat a wide range of water qualities.

* An operator with a basic skill level has minimal experience in the water treatment field and can perform the necessary system operation and monitoring if provided with proper instruction. The operator is capable of reading and following explicit directions. An operator with an intermediate skill level understands the principles of water treatment and has a knowledge of the regulatory framework. The operator is capable of making system changes in response to source water fluctuations. An operator with an advanced skill level possesses a thorough understanding of the principles of system operation. The operator is knowledgeable in water treatment and regulatory requirements. The operator may, however, have advanced knowledge of only the particular treatment technology. The operator seeks information, remains informed, and reliably interprets and responds to water fluctuations and system intricacies.

Limitations Footnotes: Technologies for Radionuclides:

[a] The regeneration solution contains high concentrations of the contaminant ions. Disposal options shall be carefully considered before choosing this technology.

[b] Reject water disposal options shall be carefully considered before choosing this technology.

[c] The combination of variable source water quality and the complexity of the water chemistry involved may make this technology too complex for small surface water systems.

[d] Removal efficiencies may vary depending on water quality.

[e] This technology may be very limited in application to small systems. Since the process requires static mixing, detention basins, and filtration, it is most applicable to systems with sufficiently high sulfate levels that already have a suitable filtration treatment train in place.

[f] This technology is most applicable to small systems that already have filtration in place.

[g] Handling of chemicals required during regeneration and pH adjustment may be too difficult for small systems without an adequately trained operator.

[h] Assumes modification to a coagulation/filtration process already in place.

Table 6 Compliance technologies by supply size category for radionuclide requirements

Contaminant	Compliance technologies* for supply size categories (population served)		
	25-500	501-3,300	3,301 – 10,000
1. Combined radium-226 and radium-228	1, 2, 3, 4, 5, 6, 7	1, 2, 3, 4, 5, 6, 7	1, 2, 3, 4, 5, 6, 7
2. Gross alpha particle activity	2	2	2
3. Beta particle activity and photon activity	1, 2	1, 2	1, 2
4. Uranium	1, 8, 9	1, 2, 3, 8, 9	1, 2, 3, 8, 9
* Numbers correspond to those technologies listed in Table 5 of this rule.			

(d) For disinfection byproducts under R 325.10610(1), the best available technologies, treatment techniques, or other means available for achieving compliance with the MCLs are listed in table 7 of this rule.

Table 7 Best available technologies for disinfection byproducts

Disinfection byproduct	Best available technology.
TTHM or HAA5	Enhanced coagulation or enhanced softening or GAC10, with chlorine as the primary and residual disinfectant.
Bromate	Control of ozone treatment process to reduce production of bromate.
Chlorite	Control of treatment processes to reduce disinfectant demand and control of disinfection treatment processes to reduce disinfectant levels.

(e) The best available technologies, treatment techniques, or other means available for achieving compliance with the maximum residual disinfectant levels under R 325.10610a(1) are control of treatment processes to reduce disinfectant demand and control of disinfection treatment processes to reduce disinfectant levels.
(2) The department shall require suppliers of community water systems and nontransient, noncommunity water systems to employ a treatment method identified in subrule (1) of this rule as a condition for granting a variance, except as provided in subrule (3) of this rule. If, after the treatment method is installed in the system, the system cannot meet the MCL, then the system shall be eligible for a variance pursuant to this part and section 20 of the act.
(3) If a supplier of water demonstrates through comprehensive engineering assessments, which may include pilot plant studies, that the treatment methods identified in subrule (1) of this rule may only achieve a de minimis reduction in contaminants, then the department may issue a schedule of compliance that requires the supplier of water being granted the variance to examine other treatment methods as a condition of obtaining the variance.
(4) If the department determines that a treatment method identified in subrule (3) of this rule is technically feasible, then the department may require the supplier of water to use that treatment method in connection with a compliance schedule issued pursuant to section 20 of the act. The department's determination shall be based on studies by the supplier of water and other relevant information.
(5) The department may require a community or noncommunity supply to use point-of-use devices, point-of-entry devices, or other means as a condition of granting a variance or an exemption from the requirements of R 325.10603, R 325.10604b, R 325.10604c, or R 325.10604d, to avoid an unreasonable risk to health. The department may require a public water system to use point-of-use devices or other means, *but not point-of-entry devices*, as a condition for granting an exemption from corrosion control treatment requirements for lead and copper in R 325.10604f(2) and (3) to avoid an unreasonable risk to health. The department may require a public water system to use point-of-entry devices as a condition for granting an exemption from the source water and lead service line replacement requirements for lead and copper under R 325.10604f(4) and (5) to avoid an unreasonable risk to health, provided the supply demonstrates that the device will not cause an increased corrosion of lead and copper bearing materials located between the device and the tap that may increase contaminant levels at the tap.
(6) Community or noncommunity water supplies that use point-of-use or point-of-entry devices under this rule shall meet the conditions in R 325.10313.

History: 1989 MR 8, Eff. Sept. 13, 1989; 1993 MR 6, Eff. July 2, 1993; 1994 MR 12, Eff. Jan. 5, 1995; 1998 MR 3, Eff. Apr. 8, 1998; 2003 MR 2, Eff. Jan. 29, 2003; 2005 mr 6, Eff. Apr. 6, 2005.

R 325.10313 Criteria for water supplies using POE, or POU, or both.
Rule 313. (1) Community and noncommunity water supplies shall not use point-of-use devices (POU) or point-of-entry devices (POE) except as required by the department under R 325.10308b or under all of the following provisions with department approval:
(a) Community water supplies may use POE to comply with the maximum contaminant level or treatment technique for organic, inorganic, and radiological contaminants.
(b) Noncommunity water supplies may use POU, or POE, or both, to comply with maximum contaminant levels or treatment techniques for organic and inorganic contaminants.
(c) An alternative source of water that meets state drinking water standards is not available.
(2) Supplies that use POU or POE, or both, shall meet all of the following requirements:
(a) The supply shall operate and maintain the POU, or POE, or both.
(b) Before POU, or POE, or both, are installed, the supply shall obtain department approval of a monitoring plan that ensures that the devices provide health protection equivalent to that provided by central water treatment. If the POU, or POE, or both, are being used to comply with maximum contaminant levels or treatment techniques, then "equivalent" means that the water shall meet all state drinking water standards and shall be of acceptable quality similar to water distributed by a well-operated central treatment plant. At a minimum, the monitoring plan shall include all of the following:
(i) Contaminants and parameters to be analyzed.
(ii) Physical measurements and observations, such as total flow treated and mechanical condition of the treatment equipment.
(iii) Location of sampling sites.
(iv) Frequency of sampling. Approximately 10% of the treatment units shall be sampled at regular intervals so that all the POE or POU are monitored at least as frequently as required in part 7 for a particular contaminant. For example, for a contaminant that is required to be sampled every 3 years, 10% of the POE or POU shall be monitored quarterly so that in 3 years time all of the POE or POU have been monitored. The department may approve an alternate frequency that better represents the rate of degradation of the POE or POU.
(c) Before POU, or POE, or both, are installed, the supply shall obtain department approval of a technology plan that ensures that effective technology is applied and that the microbiological safety of the water is maintained at all times. At a minimum, the technology plan shall include all of the following:
(i) The POU, or POE, or both, shall be equipped with mechanical warnings to ensure that customers are automatically notified of operational problems.
(ii) If a specific type of POU or POE has been independently certified to comply with the maximum contaminant level or treatment technique in accordance with the American national standards institute/national sanitation foundation standards 44, 53, 58, or 62, as adopted by reference in this paragraph, then individual units of that type shall be used to comply with the maximum contaminant level or treatment technique. A supply may use an alternate type of POU or POE if the supply demonstrates to the department, using pilot plant studies or other means, that the alternative POU or POE consistently complies with the maximum contaminant level or treatment technique and the department approves the use of the POU or POE. The department adopts by reference ANSI/NSF standards 44-2002 (February 8, 2002) as amended by 44-2002 Addendum 1.0-2002 (July 31, 2002), 53-2002e (November 14, 2003), 58-2003 (February 2, 2004), and 62-1999 (September 1, 1999) as amended by 62-1999 Addendum 1.0-2002 (July 31, 2002). The adopted material is available from NSF at 789 North Dixboro Road, Ann Arbor, MI 48105, telephone 734-769-8010, Internet address http//www.nsf.org for a cost at the time of adoption of these rules of $150.00 for 44-2002, $45.00 for 44-2002 Addendum 1.0-2002, $150.00 for 53-2002e, $150.00 for 58-2003, $150 for 62-1999, and $45.00 for 62-1999 Addendum. The adopted material is available for inspection at the offices of the department at the address in R 325.10116(a).
(iii) The design and application of the POU, or POE, or both, shall consider the potential for increasing concentrations of heterotrophic bacteria in water treated with activated carbon. Frequent backwashing, post-contactor disinfection, and heterotrophic plate count monitoring may ensure that the microbiological safety of the water is not compromised.
(d) The supply shall demonstrate that buildings connected to the system have sufficient POU, or POE, or both, that are properly installed, maintained, and monitored such that all of consumers shall be protected.
(e) If the POU, or POE, or both, are used to meet an MCL or treatment technique, then the supply shall replace

or repair the POU or POE when the contaminant for which the device is intended to control is above the maximum contaminant level in a confirmed sample.
(3) Compliance with the maximum contaminant level shall be determined based on the analytical results obtained at each POU or POE, otherwise called "sampling point". Compliance determination shall be made under R 325.10604b(2) for volatile organic contaminants, R 325.10604c(2) for inorganic contaminants, or R 325.10604d(2) for synthetic organic chemicals.
(4) Supplies that violate the MCL shall notify the department under part 7 of these rules and shall notify the public under part 4 of these rules. The supply may limit the distribution of the public notice to only persons served by the POU or POE that is out of compliance.
History: 2005 MR 6, Eff. Apr. 6, 2005.

PART 4. PUBLIC NOTIFICATION AND PUBLIC EDUCATION

R 325.10401
Source: 2003 AACS.

R 325.10401a General public notification requirements.
Rule 401a. (1) Each supplier of a community water system, nontransient noncommunity water system, or transient noncommunity water system shall give notice for violations of the maximum contaminant level (MCL), maximum residual disinfection level (MRDL), treatment technique (TT), monitoring requirements, testing procedures in these rules, and for other situations, as listed in the following provisions:
(a) Violations and other situations requiring public notice, including all of the following:
(i) Failure to comply with an applicable maximum contaminant level (MCL) or maximum residual disinfectant level (MRDL).
(ii) Failure to comply with a prescribed treatment technique (TT).
(iii) Failure to perform water quality monitoring, as required by part 7 of these rules.
(iv) Failure to comply with testing procedures as prescribed by part 6 of these rules.
(b) Variance and exemptions under part 3 of these rules, including both of the following:
(i) Operation under a variance or an exemption.
(ii) Failure to comply with the requirements of a schedule that has been set under a variance or exemption.
(c) Special public notices, including all of the following:
(i) Occurrence of a waterborne disease outbreak or other waterborne emergency.
(ii) Exceedance of the nitrate MCL by noncommunity water systems, where granted permission by the department.
(iii) Fluoride level above 2 mg/l as specified in R 325.10408a.
(iv) Availability of unregulated contaminant monitoring data.
(v) Other violations and situations which are determined by the department to require a public notice under this part and which are not already listed in table 1 of this rule.
The tier assignment for each specific violation or situation requiring a public notice is identified in table 1 of this rule.
(2) Public notice requirements are divided into 3 tiers to take into account the seriousness of the violation or situation and of the potential adverse health effects that may be involved. The public notice requirements for each violation or situation listed in subrule (1) of this rule are determined by the tier to which the violation or situation is assigned. The definition of each tier is provided in the following provisions:
(a) Tier 1 public notice is required for violations and situations that have significant potential to have serious adverse effects on human health as a result of short-term exposure.
(b) Tier 2 public notice is required for all other violations and situations that have potential to have serious adverse effects on human health.
(c) Tier 3 public notice is required for all other violations and situations not included in tier 1 and tier 2.
The tier assignment for each specific violation or situation is identified in table 1 of this rule.
(3) Suppliers shall provide public notice to the following:
(a) Each supplier shall provide public notice to persons served by the system as specified in this part. Suppliers that sell or otherwise provide drinking water to other public water systems, such as to consecutive systems, shall give public notice to the supplier of the consecutive system. The consecutive system shall provide public notice to the persons it serves.
(b) If a public water system has a violation in a portion of the distribution system that is physically or

hydraulically isolated from other parts of the distribution system, then the department may grant permission, which shall be in writing, to the supplier to limit distribution of the public notice to only persons served by that portion of the system which is out of compliance. To be physically separated, the supplier shall show that the affected portion of the distribution system is separated from other parts of the distribution system with no interconnections. To be considered hydraulically separated, the supplier shall show that the design of the distribution system or the system operation, or both, created a situation where water in the affected portion is effectively isolated from the water in all other parts of the distribution system because of projected water flow patterns and water pressure zones.

(4) The supplier, within 10 days of completing the public notification requirements under this part for the initial public notice and applicable repeat notices, shall submit to the department a certification that it fully complied with the public notification regulations. The supplier shall include with this certification a representative copy of each type of notice distributed, published, posted, and made available to the persons served by the system and to the media.

Table 1 Violations and other situations requiring public notice

Contaminant	MCL/MRDL/TT violations [1]		Monitoring & testing procedure violations	
	Tier of public notice required	Citation	Tier of public notice required	Citation
I. Violations of MCL, MRDL, treatment technique, monitoring and reporting, and testing procedure requirements:				
A. Microbiological contaminants				
Total coliform	2	R 325.10602(a) and (b)	3	R 325.10704 R 325.10705 R 325.10706 R 325.10707 R 325.10707a R 325.10702(2) R 325.10707b(4)
Fecal coliform/E. coli	1	R 325.10602(c)	1, 3 [2]	R 325.10704(3) R 325.10707b(4)
Turbidity (for TT violations resulting from a single exceedance of maximum allowable turbidity level)	2, 1 [3]	R 325.10611b	3	R 325.10605 R 325.10720(2)(a) and (b)
Violations, other than violations resulting from single exceedance of max. allowable turbidity level (TT)	2	R 325.10611, R 325.10611a, and R 325.10611b	3	R 325.10605 R 325.10720(2)(c) and (d)
Violations of disinfection profiling and benchmarking	N/A	N/A	3	R 325.10722
Violations of filter backwash recycling provisions	2	R 325.10611c	3	R 325.1506(7)
B. Inorganic chemicals (IOC)				
Antimony	2	R 325.10604c(1)	3	R 325.10710(4) and (5)
Arsenic	2	R 325.10604c(1)	3	R 325.10710(4) and (5) R 325.605
Asbestos (fibers longer than 10 μm)	2	R 325.10604c(1)	3	R 325.10710(4), (6)

Contaminant	MCL/MRDL/TT violations [1]		Monitoring & testing procedure violations	
	Tier of public notice required	Citation	Tier of public notice required	Citation
Barium	2	R 325.10604c(1)	3	R 325.10710(4) and (5)
Beryllium	2	R 325.10604c(1)	3	R 325.10710(4) and (5)
Cadmium	2	R 325.10604c(1)	3	R 325.10710(4) and (5)
Chromium (total)	2	R 325.10604c(1)	3	R 325.10710(4) and (5)
Cyanide (free)	2	R 325.10604c(1)	3	R 325.10710(4) and (5)
Fluoride	2	R 325.10604c(1)	3	R 325.10710(4) and (5)
Mercury (inorganic)	2	R 325.10604c(1)	3	R 325.10710(4) and (5)
Nitrate (as nitrogen)	1	R 325.10604c(1)	1, 3 [4]	R 325.10710(3), (4), (7), and (9)(b)
Nitrite (as nitrogen)	1	R 325.10604c(1)	1, 3 [4]	R 325.10710(3), (4), (8), and (9)(b)
Total nitrate and nitrite (as nitrogen)	1	R 325.10604c(1)	3	R 325.10710(4)
Selenium	2	R 325.10604c(1)	3	R 325.10710(4) and (5)
Thallium	2	R 325.10604c(1)	3	R 325.10710(4) and (5)
C. Lead and copper (action level for lead is 0.015 mg/l, for copper is 1.3 mg/l)				
Lead and copper rule (TT)	2	R 325.10604f(1) – (5) and R 325.10410	3	R 325.10710a to R 325.10710c and R 325.10605
D. Synthetic organic chemicals (SOC)				
2,4-D	2	R 325.10604d(1)	3	R 325.10717
2,4,5-TP (silvex)	2	R 325.10604d(1)	3	R 325.10717
Alachlor	2	R 325.10604d(1)	3	R 325.10717
Atrazine	2	R 325.10604d(1)	3	R 325.10717
Benzo(a)pyrene (PAHs)	2	R 325.10604d(1)	3	R 325.10717
Carbofuran	2	R 325.10604d(1)	3	R 325.10717
Chlordane	2	R 325.10604d(1)	3	R 325.10717
Dalapon	2	R 325.10604d(1)	3	R 325.10717
Di (2-ethylhexyl) adipate	2	R 325.10604d(1)	3	R 325.10717
Di (2-ethylhexyl) phthalate	2	R 325.10604d(1)	3	R 325.10717
Dibromochloropropane	2	R 325.10604d(1)	3	R 325.10717
Dinoseb	2	R 325.10604d(1)	3	R 325.10717
Dioxin (2,3,7,8-TCDD)	2	R 325.10604d(1)	3	R 325.10717
Diquat	2	R 325.10604d(1)	3	R 325.10717
Endothall	2	R 325.10604d(1)	3	R 325.10717
Endrin	2	R 325.10604d(1)	3	R 325.10717
Ethylene dibromide	2	R 325.10604d(1)	3	R 325.10717
Glyphosate	2	R 325.10604d(1)	3	R 325.10717
Heptachlor	2	R 325.10604d(1)	3	R 325.10717
Heptachlor epoxide	2	R 325.10604d(1)	3	R 325.10717

Contaminant	MCL/MRDL/TT violations [1]		Monitoring & testing procedure violations	
	Tier of public notice required	Citation	Tier of public notice required	Citation
Hexachlorobenzene	2	R 325.10604d(1)	3	R 325.10717
Hexachlorocyclo-pentadiene	2	R 325.10604d(1)	3	R 325.10717
Lindane	2	R 325.10604d(1)	3	R 325.10717
Methoxychlor	2	R 325.10604d(1)	3	R 325.10717
Oxamyl (vydate)	2	R 325.10604d(1)	3	R 325.10717
Pentachlorophenol	2	R 325.10604d(1)	3	R 325.10717
Picloram	2	R 325.10604d(1)	3	R 325.10717
Polychlorinated biphenyls [PCBs]	2	R 325.10604d(1)	3	R 325.10717
Simazine	2	R 325.10604d(1)	3	R 325.10717
Toxaphene	2	R 325.10604d(1)	3	R 325.10717
E. Volatile organic chemicals (VOC)				
Benzene	2	R 325.10604b(1)	3	R 325.10716
Carbon tetrachloride	2	R 325.10604b(1)	3	R 325.10716
Chlorobenzene (monochloro-benzene)	2	R 325.10604b(1)	3	R 325.10716
O-dichlorobenzene	2	R 325.10604b(1)	3	R 325.10716
P-dichlorobenzene	2	R 325.10604b(1)	3	R 325.10716
1,2-dichloroethane	2	R 325.10604b(1)	3	R 325.10716
1,1-dichloroethylene	2	R 325.10604b(1)	3	R 325.10716
Cis-1,2-dichloroethylene	2	R 325.10604b(1)	3	R 325.10716
Trans-1,2-dichloroethylene	2	R 325.10604b(1)	3	R 325.10716
Dichloromethane	2	R 325.10604b(1)	3	R 325.10716
1,2-dichloropropane	2	R 325.10604b(1)	3	R 325.10716
Ethylbenzene	2	R 325.10604b(1)	3	R 325.10716
Styrene	2	R 325.10604b(1)	3	R 325.10716
Tetrachloro-ethylene	2	R 325.10604b(1)	3	R 325.10716
Toluene	2	R 325.10604b(1)	3	R 325.10716
1,2,4-trichlorobenzene	2	R 325.10604b(1)	3	R 325.10716
1,1,1-trichloroethane	2	R 325.10604b(1)	3	R 325.10716
1,1,2-trichloroethane	2	R 325.10604b(1)	3	R 325.10716
Trichloroethylene	2	R 325.10604b(1)	3	R 325.10716
Vinyl chloride	2	R 325.10604b(1)	3	R 325.10716
Xylenes (total)	2	R 325.10604b(1)	3	R 325.10716
F. Radioactive contaminants				
Beta/photon emitters	2	R 325.10603(2)(c)	3	R 325.10605 R 325.10725 R 325.10730
Alpha emitters (gross alpha)	2	R 325.10603(2)(b)	3	R 325.10605 R 325.10725 R 325.10726 R 325.10728 R 325.10729
Combined radium (226 & 228)	2	R 325.10603(2)(a)	3	R 325.10605 R 325.10725 R 325.10726 R 325.10728 R 325.10729

Contaminant	MCL/MRDL/TT violations [1]		Monitoring & testing procedure violations	
	Tier of public notice required	Citation	Tier of public notice required	Citation
Uranium (pCi/L)	2	R 325.10603(2)(d)	3	R 325.10605 R 325.10725 R 325.10726 R 325.10728 R 325.10729
G. Disinfection byproducts (DBP), byproduct precursors, disinfectant residuals. Where disinfection is used in the treatment of drinking water, disinfectants combine with organic and inorganic matter present in water to form chemicals called disinfection byproducts (DBP). The department sets standards for controlling the levels of disinfectants and DBPs in drinking water, including trihalomethanes (THM) and haloacetic acids (HAA).[5]				
Total trihalomethanes (TTHM)	2	R 325.10610 R 325.10610b(2)(a)	3	R 325.10719a to R 325.10719e(1) and (2)(a)
Haloacetic acids (HAA)	2	R 325.10610 R 325.10610b(2)(a)	3	R 325.10719e(1) and (2)(a)
Bromate	2	R 325.10610 R 325.10610b(2)(b)	3	R 325.10719e(1) and (2)(c)
Chloramine (MRDL)	2	R 325.10610a R 325.10610b(3)(a)	3	R 325.10719e(1) and (3)
Chlorine (MRDL)	2	R 325.10610a R 325.10610b(3)(a)	3	R 325.10719e(1) and (3)
Chlorite	2	R 325.10610 R 325.10610b(2)(c)	3	R 325.10719e(1) and (2)(b)
Chlorine dioxide (MRDL), where any 2 consecutive daily samples at entrance to distribution system only are above MRDL	2	R 325.10610a R 325.10610b(3)(b)(ii)	2 [6], 3	R 325.10719e(1), (3)(b)(i) and (iii)
Chlorine dioxide (MRDL), where sample(s) in distribution system the next day are also above MRDL	1 [7]	R 325.10610a R 325.10610b(3)(b)(i)	1	R 325.10719e(1), (3)(b)(ii) and (iii)
Control of DBP precursors—TOC (TT)	2	R 325.10610b(4) R 325.10610c	3	R 325.10719e(1) and (4)
Bench marking and disinfection profiling	N/A	N/A	3	R 325.10722
Development of monitoring plan	N/A	N/A	3	R 325.10719e(5)
H. Other treatment techniques				
Acrylamide (TT)	2	R 325.10604e	N/A	N/A
Epichlorohydrin (TT)	2	R 325.10604e	N/A	N/A
II. Other monitoring:				
Unregulated contaminants	N/A	N/A	3	R 325.10717b
Nickel	N/A	N/A	3	R 325.10710(4), (5), and (9)
III. Public notification for variances and exemptions:				
Operation under a variance or exemption	3	R 325.10302 and R 325.10312	N/A	N/A
Violation of conditions of a variance or exemption	2	R 325.10302 and R 325.10312	N/A	N/A

Contaminant	MCL/MRDL/TT violations [1]		Monitoring & testing procedure violations	
	Tier of public notice required	Citation	Tier of public notice required	Citation
IV. Other situations requiring public notification:				
Fluoride level above 2 mg/l	3	R 325.10408a(1)	N/A	N/A
Exceedance of nitrate MCL for noncommunity systems, as allowed by the department	1	R 325.10604c(3)	N/A	N/A
Availability of unregulated contaminant monitoring data	3	R 325.10407	N/A	N/A
Waterborne disease outbreak	1	R 325.10734(4)	N/A	N/A
Other waterborne emergencies and other situations as determined by the department	1 or 2 or 3 [8]	N/A	N/A	N/A

[1] MCL - Maximum contaminant level, MRDL - maximum residual disinfectant level, TT - treatment technique.

[2] Failure to test for fecal coliform or E. coli is a tier 1 violation if testing is not done after any repeat sample tests positive for coliform. All other total coliform monitoring and testing procedure violations are tier 3.

[3] Systems with treatment technique violations involving a single exceedance of a maximum turbidity limit under R 325.10611b(1) are required to initiate consultation with the department within 24 hours after learning of the violation. Based on this consultation, the department may subsequently decide to elevate the violation to tier 1. If a system is unable to make contact with the department in the 24-hour period, the violation is automatically elevated to tier 1.

[4] Failure to take a confirmation sample within 24 hours for nitrate or nitrite after an initial sample exceeds the MCL is a tier 1 violation. Other monitoring violations for nitrate are tier 3.

[5] See R 325.10610, R 325.10610a, and R 325.10719e for disinfection byproduct MCLs, disinfectant MRDLs, and related monitoring requirements.

[6] Failure to monitor for chlorine dioxide at the entrance to the distribution system the day after exceeding the MRDL at the entrance to the distribution system is a tier 2 violation.

[7] If any daily sample taken at the entrance to the distribution system exceeds the MRDL for chlorine dioxide and 1 or more samples taken in the distribution system the next day exceed the MRDL, tier 1 notification is required. Failure to take the required samples in the distribution system after the MRDL is exceeded at the entry point also triggers tier 1 notification.

[8] Waterborne emergencies require a tier 1 public notice. The department may place other situations in any tier it determines appropriate, based on threat to public health.
History: 2003 MR 2, Eff. Jan. 29, 2003; 2005 MR 8, Eff. Apr. 29, 2005.

R 325.10402
Source: 2003 AACS.

R 325.10403
Source: 2003 AACS.

R 325.10404
Source: 2003 AACS.

R 325.10405 Content of public notice.
Rule 405. (1) If a system has a violation or situation requiring public notification, then each public notice shall include all of the following elements:
(a) A description of the violation or situation, including the contaminant or contaminants of concern, and, as applicable, the contaminant level or levels.
(b) When the violation or situation occurred.
(c) The potential adverse health effects from the violation or situation, including the standard language under subrule (4)(a) or (4)(b) of this rule, whichever is applicable.
(d) The population at risk, including subpopulations particularly vulnerable if exposed to the contaminant in their drinking water.
(e) If alternative water supplies should be used.
(f) What actions consumers should take, including when they should seek medical help, if known.
(g) What the supplier is doing to correct the violation or situation.
(h) When the supplier expects to return to compliance or resolve the situation.
(i) The name, business address, and phone number of the supplier or designee of the supplier as a source of additional information concerning the notice.
(j) A statement to encourage the notice recipient to distribute the public notice to other persons served, using the standard language under subrule (4)(c) of this rule, where applicable.
(2) All of the following elements shall be included in the public notice for public water systems operating under a variance or exemption:
(a) If a public water system has been granted a variance or an exemption, then the public notice shall contain all of the following elements:
(i) An explanation of the reasons for the variance or exemption.
(ii) The date on which the variance or exemption was issued.
(iii) A brief status report on the steps the supplier is taking to install treatment, find alternative sources of water, or otherwise comply with the terms and schedules of the variance or exemption.
(iv) A notice of opportunities for public input in the review of the variance or exemption.
(b) If a public water system violates the conditions of a variance or exemption, then the public notice shall contain the 10 elements listed in subrule (1) of this rule.
(3) The public notice shall be presented in the following manner:
(a) Each public notice required by this part shall meet all of the following criteria:
(i) Shall be displayed in a conspicuous way when printed or posted.
(ii) Shall not contain overly technical language or very small print.
(iii) Shall not be formatted in a way that defeats the purpose of the notice.
(iv) Shall not contain language which nullifies the purpose of the notice.
(b) In communities where more than 10% of the consumers are non-English speaking consumers, the public notice shall contain information in the appropriate language or languages regarding the importance of the notice or contain a telephone number or address where persons served may contact the supplier to obtain a translated copy of the notice or to request assistance in the appropriate language.
(4) The supplier shall include the following standard language in the public notice:
(a) The supplier shall include in each public notice the health effects language specified in table 1 of this rule corresponding to each MCL, MRDL, and treatment technique violation listed in table 1 of R 325.10401a, and for each violation of a condition of a variance or exemption.
(b) The supplier shall include the following language in the notice, including the language necessary to fill in the blanks, for all monitoring and testing procedure violations listed in table 1 of R 325.10401a:
"We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During [compliance period], we 'did not monitor or test' or 'did not complete all monitoring or testing' for [contaminant or contaminants], and therefore cannot be sure of the quality of your drinking water during that time."
(c) The supplier shall include in the notice the following language, where applicable, to encourage the distribution of the public notice to all persons served:
"Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You

can do this by posting this notice in a public place or distributing copies by hand or mail."
Table 1 Regulated contaminants

Key
AL=Action level
MCL=Maximum contaminant level
MCLG=Maximum contaminant level goal
mfl=Million fibers per liter
MRDL=Maximum residual disinfectant level
MRDLG=Maximum residual disinfectant level goal
mrem/year=Millirems per year (a measure of radiation absorbed by the body)
N/A=Not applicable
ntu=Nephelometric turbidity units (a measure of water clarity)
pci/l=Picocuries per liter (a measure of radioactivity)
ppm=Parts per million, or milligrams per liter (mg/l)
ppb=Parts per billion, or micrograms per liter (µg/l)
ppt=Parts per trillion, or nanograms per liter
ppq=Parts per quadrillion, or picograms per liter
TT=Treatment technique

taminant CR units	Traditional MCL in mg/l, except where noted	To convert for CCR, multiply by	MCL in CCR units	MCLG in CCR units	Major sources in drinking water	Health effects language
robiological contaminants						
l coliform bacteria	MCL: For water systems analyzing 40 or more samples per month, not more than 5.0% of the monthly samples may be positive for total coliform. For systems analyzing fewer than 40 samples per month, not more than 1 sample per month may be positive for total coliform.			zero	Naturally present in the environment	Coliforms are bacteria that are naturally preser environment and are used as an indicator tha potentially-harmful, bacteria may be present. C were found in more samples than allowed and th warning of potential problems.
al coliform and oli	zero	No conversion necessary	zero	zero	Human and animal fecal waste	Fecal coliforms and E. coli are bacteria whose p indicates that the water may be contaminat human or animal wastes. Microbes in these wa cause short-term effects, such as diarrhea, nausea, headaches, or other symptoms. They ma special health risk for infants, young children, the elderly, and people with severely comp immune systems.
bidity)	TT*	No conversion necessary	TT*	N/A	Soil runoff	Turbidity has no health effects. However, turbi interfere with disinfection and provide a med microbial growth. Turbidity may indicate the pre disease-causing organisms. These organisms bacteria, viruses, and parasites that can cause sy such as nausea, cramps, diarrhea and as headaches.
	* R 325.10611b sets turbidity standards for different types of systems.					
er microbiological contaminants						

taminant CR units	Traditional MCL in mg/l, except where noted	To convert for CCR, multiply by	MCL in CCR units	MCLG in CCR units	Major sources in drinking water	Health effects language
rdia lamblia, ses, erotrophic plate nt (HPC) bacteria, onella, otosporidium	TT*	No conversion necessary	TT*	zero	Naturally present in the environment	Inadequately treated water may contain disease organisms. These organisms include bacteria, and parasites which can cause symptoms such as cramps, diarrhea, and associated headaches.
	* The treatment technique violations that involve turbidity exceedances may use health effects language for turbidity instead.					
rganic contaminants						
imony (ppb)	0.006	1000	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder	Some people who drink water containing antimo in excess of the MCL over many years could ex increases in blood cholesterol and decreases i sugar.
enic (ppb)	0.010*	1000	10*	0*	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes	Some people who drink water containing ar excess of the MCL over many years could ex skin damage or problems with their circulatory and may have an increased risk of getting cancer.
	* These values are effective January 23, 2006. Until then, the MCL is 0.05 mg/l and there is no MCLG.					
estos [fibers longer 10 µm] (mfl)	7 mfl	No conversion necessary	7	7	Decay of asbestos cement water mains; erosion of natural deposits	Some people who drink water containing asb excess of the MCL over many years may increased risk of developing benign intestinal pol
ium (ppm)	2	No conversion necessary	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	Some people who drink water containing ba excess of the MCL over many years could exper increase in their blood pressure.
yllium (ppb)	0.004	1000	4	4	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries	Some people who drink water containing berylli in excess of the MCL over many years could intestinal lesions.
mium (ppb)	0.005	1000	5	5	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints	Some people who drink water containing cadı excess of the MCL over many years could ex kidney damage.
omium [total] (ppb)	0.1	1000	100	100	Discharge from steel and pulp mills; erosion of natural deposits	Some people who use water containing chromi in excess of the MCL over many years could ex allergic dermatitis.
nide [free] (ppb)	0.2	1000	200	200	Discharge from steel/metal factories; discharge from plastic and fertilizer factories	Some people who drink water containing cyanid excess of the MCL over many years could ex nerve damage or problems with their thyroid.

taminant CR units	Traditional MCL in mg/l, except where noted	To convert for CCR, multiply by	MCL in CCR units	MCLG in CCR units	Major sources in drinking water	Health effects language
oride (ppm)	4	No conversion necessary	4	4	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories	Some people who drink water containing flu excess of the MCL over many years could g disease, including pain and tenderness of the Fluoride in drinking water at half the MCL or m cause mottling of children's teeth, usually in less than 9 years old. Mottling, also known a fluorosis, may include brown staining and/or p the teeth, and occurs only in developing teeth bef erupt from the gums.
rcury [inorganic])	0.002	1000	2	2	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland	Some people who drink water containing i mercury well in excess of the MCL over mar could experience kidney damage.
ate nitrogen] (ppm)	10	No conversion necessary	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	Infants below the age of 6 months who drin containing nitrate in excess of the MCL could seriously ill and, if untreated, may die. Sy include shortness of breath and blue baby syndro
ite nitrogen] (ppm)	1	No conversion necessary	1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	Infants below the age of 6 months who drin containing nitrite in excess of the MCL could seriously ill and, if untreated, may die. Sy include shortness of breath and blue baby syndro
al nitrate and nitrite nitrogen] (ppm)	10	No conversion necessary	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	Infants below the age of 6 months who drin containing nitrate and nitrite in excess of the MC become seriously ill and, if untreated, m Symptoms include shortness of breath and bl syndrome.
enium (ppb)	0.05	1000	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines	Selenium is an essential nutrient. However, som who drink water containing selenium in exces MCL over many years could experience fingernail losses, numbness in fingers or problems with their circulation.
llium (ppb)	0.002	1000	2	0.5	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories	Some people who drink water containing tha excess of the MCL over many years could ex hair loss, changes in their blood, or problems w kidneys, intestines, or liver.
d and copper						
d (ppb)	AL=0.015	1000	AL=15 (TT)	zero	Corrosion of household plumbing systems; erosion of natural deposits	Infants and children who drink water containing excess of the action level could experience d their physical or mental development. Childre show slight deficits in attention span and abilities. Adults who drink this water over mar could develop kidney problems or high blood pre

taminant CR units	Traditional MCL in mg/l, except where noted	To convert for CCR, multiply by	MCL in CCR units	MCLG in CCR units	Major sources in drinking water	Health effects language
per (ppm)	AL=1.3	No conversion necessary	AL=1.3 (TT)	1.3	Corrosion of household plumbing systems; erosion of natural deposits	Copper is an essential nutrient, but some peo drink water containing copper in excess of th level over a relatively short amount of tim experience gastrointestinal distress. Some peo drink water containing copper in excess of th level over many years could suffer liver or damage. People with Wilson's disease should their personal doctor.
thetic organic contaminants including pesticides and herbicides						
D (ppb)	0.07	1000	70	70	Runoff from herbicide used on row crops	Some people who drink water containing the we 2,4-d well in excess of the MCL over many yea experience problems with their kidneys, liver, or glands.
5-TP [silvex] (ppb)	0.05	1000	50	50	Residue of banned herbicide	Some people who drink water containing s excess of the MCL over many years could ex liver problems.
chlor (ppb)	0.002	1000	2	zero	Runoff from herbicide used on row crops	Some people who drink water containing ala excess of the MCL over many years cou problems with their eyes, liver, kidneys, or sp experience anemia, and may have an increased getting cancer.
azine (ppb)	0.003	1000	3	3	Runoff from herbicide used on row crops	Some people who drink water containing atrazin excess of the MCL over many years could ex problems with their cardiovascular syst reproductive difficulties.
zo(a)pyrene Hs] (ppt)	0.0002	1,000,000	200	zero	Leaching from linings of water storage tanks and distribution lines	Some people who drink water containing benzo(a in excess of the MCL over many years may ex reproductive difficulties and may have an increa of getting cancer.
bofuran (ppb)	0.04	1000	40	40	Leaching of soil fumigant used on rice and alfalfa	Some people who drink water containing carbo excess of the MCL over many years could ex problems with their blood, or nervous or repr systems.
ordane (ppb)	0.002	1000	2	zero	Residue of banned termiticide	Some people who drink water containing chlo excess of the mcl over many years could ex problems with their liver or nervous system, a have an increased risk of getting cancer.
apon (ppb)	0.2	1000	200	200	Runoff from herbicide used on rights of way	Some people who drink water containing dalapon excess of the MCL over many years could ex minor kidney changes.
2-ethylhexyl) pate (ppb)	0.4	1000	400	400	Discharge from chemical factories	Some people who drink water containing ethylhexyl) adipate well in excess of the MC many years could experience toxic effects such a loss, liver enlargement, or possible repr difficulties.
2-ethylhexyl) halate (ppb)	0.006	1000	6	zero	Discharge from rubber and chemical factories	Some people who drink water containing ethylhexyl) phthalate well in excess of the MC many years may have problems with their l experience reproductive difficulties, and may increased risk of getting cancer.

taminant CR units	Traditional MCL in mg/l, except where noted	To convert for CCR, multiply by	MCL in CCR units	MCLG in CCR units	Major sources in drinking water	Health effects language
romochloropropane BCP] (ppt)	0.0002	1,000,000	200	zero	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards	Some people who drink water containing D excess of the MCL over many years could ex reproductive difficulties and may have an increa of getting cancer.
oseb (ppb)	0.007	1000	7	7	Runoff from herbicide used on soybeans and vegetables	Some people who drink water containing dinosel excess of the MCL over many years could ex reproductive difficulties.
xin [2,3,7,8-TCDD] q)	0.00000003	1,000,000,000	30	zero	Emissions from waste incineration and other combustion; discharge from chemical factories	Some people who drink water containing di excess of the MCL over many years could ex reproductive difficulties and may have an increa of getting cancer.
uat (ppb)	0.02	1000	20	20	Runoff from herbicide use	Some people who drink water containing d excess of the MCL over many years could get ca
othall (ppb)	0.1	1000	100	100	Runoff from herbicide use	Some people who drink water containing endo excess of the MCL over many years could ex problems with their stomach or intestines.
rin (ppb)	0.002	1000	2	2	Residue of banned insecticide	Some people who drink water containing er excess of the MCL over many years could ex liver problems.
ylene dibromide)	0.00005	1,000,000	50	zero	Discharge from petroleum refineries	Some people who drink water containing dibromide in excess of the MCL over many yea experience problems with their liver, s reproductive system, or kidneys, and may h increased risk of getting cancer.
phosate (ppb)	0.7	1000	700	700	Runoff from herbicide use	Some people who drink water containing glyph excess of the MCL over many years could ex problems with their kidneys or reproductive diffi
tachlor (ppt)	0.0004	1,000,000	400	zero	Residue of banned pesticide	Some people who drink water containing hepta excess of the MCL over many years could ex liver damage and may have an increased risk o cancer.
tachlor epoxide)	0.0002	1,000,000	200	zero	Breakdown of heptachlor	Some people who drink water containing he epoxide in excess of the MCL over many yea experience liver damage, and may have an increa of getting cancer.
achlorobenzene)	0.001	1000	1	zero	Discharge from metal refineries and agricultural chemical factories	Some people who drink water co hexachlorobenzene in excess of the MCL ov years could experience problems with their kidneys, or adverse reproductive effects, and m an increased risk of getting cancer.
achlorocyclopentad (ppb)	0.05	1000	50	50	Discharge from chemical factories	Some people who drink water co hexachlorocyclopentadiene well in excess of th over many years could experience problems w kidneys or stomach.
ane (ppt)	0.0002	1,000,000	200	200	Runoff/leaching from insecticide used on cattle, lumber, gardens	Some people who drink water containing lin excess of the MCL over many years could ex problems with their kidneys or liver.

taminant CR units	Traditional MCL in mg/l, except where noted	To convert for CCR, multiply by	MCL in CCR units	MCLG in CCR units	Major sources in drinking water	Health effects language
hoxychlor (ppb)	0.04	1000	40	40	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock	Some people who drink water containing metho in excess of the MCL over many years could ex reproductive difficulties.
myl [vydate] (ppb)	0.2	1000	200	200	Runoff/leaching from insecticide used on apples, potatoes, and tomatoes	Some people who drink water containing ox excess of the MCL over many years could ex slight nervous system effects.
tachlorophenol b)	0.001	1000	1	zero	Discharge from wood preserving factories	Some people who drink water co pentachlorophenol in excess of the MCL ov years could experience problems with their kidneys, and may have an increased risk of cancer.
oram (ppb)	0.5	1000	500	500	Herbicide runoff	Some people who drink water containing picl excess of the MCL over many years could ex problems with their liver.
ychlorinated henyls Bs] (ppt)	0.0005	1,000,000	500	zero	Runoff from landfills; discharge of waste chemicals	Some people who drink water containing PCBs i of the MCL over many years could experience in their skin, problems with their thymus gland, deficiencies, or reproductive or nervous difficulties, and may have an increased risk of cancer.
azine (ppb)	0.004	1000	4	4	Herbicide runoff	Some people who drink water containing sim excess of the MCL over many years could ex problems with their blood.
aphene (ppb)	0.003	1000	3	zero	Runoff/leaching from insecticide used on cotton and cattle	Some people who drink water containing toxap excess of the MCL over many years cou problems with their kidneys, liver, or thyroid, a have an increased risk of getting cancer.
atile organic contaminants						
zene (ppb)	0.005	1000	5	zero	Discharge from factories; leaching from gas storage tanks and landfills	Some people who drink water containing ben excess of the MCL over many years could ex anemia or a decrease in blood platelets, and may increased risk of getting cancer.
bon tetrachloride b)	0.005	1000	5	zero	Discharge from chemical plants and other industrial activities	Some people who drink water containing tetrachloride in excess of the MCL over man could experience problems with their liver and m an increased risk of getting cancer.
orobenzene (ppb)	0.1	1000	100	100	Discharge from chemical and agricultural chemical factories	Some people who drink water containing chloro in excess of the MCL over many years could ex problems with their liver or kidneys.
ichlorobenzene b)	0.6	1000	600	600	Discharge from industrial chemical factories	Some people who drink water contain dichlorobenzene well in excess of the MCL ov years could experience problems with thei kidneys, or circulatory systems.
ichlorobenzene b)	0.075	1000	75	75	Discharge from industrial chemical factories	Some people who drink water contain dichlorobenzene in excess of the MCL over ma could experience anemia, damage to their liver, or spleen, or changes in their blood.

taminant CR units	Traditional MCL in mg/l, except where noted	To convert for CCR, multiply by	MCL in CCR units	MCLG in CCR units	Major sources in drinking water	Health effects language
dichloroethane b)	0.005	1000	5	zero	Discharge from industrial chemical factories	Some people who drink water containin dichloroethane in excess of the MCL over ma may have an increased risk of getting cancer.
dichloroethylene b)	0.007	1000	7	7	Discharge from industrial chemical factories	Some people who drink water containin dichloroethylene in excess of the MCL over ma could experience problems with their liver.
-1,2- loroethylene (ppb)	0.07	1000	70	70	Discharge from industrial chemical factories	Some people who drink water containing dichloroethylene in excess of the MCL over ma could experience problems with their liver.
ns-1,2- loroethylene (ppb)	0.1	1000	100	100	Discharge from industrial chemical factories	Some people who drink water containing t dichloroethylene well in excess of the MCL ov years could experience problems with their liver.
hloromethane (ppb)	0.005	1000	5	zero	Discharge from pharmaceutical and chemical factories	Some people who drink water co dichloromethane in excess of the MCL over ma could have liver problems and may have an i risk of getting cancer.
dichloropropane b)	0.005	1000	5	zero	Discharge from industrial chemical factories	Some people who drink water containin dichloropropane in excess of the MCL over ma may have an increased risk of getting cancer.
ylbenzene (ppb)	0.7	1000	700	700	Discharge from petroleum refineries	Some people who drink water containing ethyl well in excess of the MCL over many year experience problems with their liver or kidneys.
rene (ppb)	0.1	1000	100	100	Discharge from rubber and plastic factories; leaching from landfills	Some people who drink water containing styren excess of the MCL over many years cou problems with their liver, kidneys, or circulatory
rachloro-ethylene b)	0.005	1000	5	Zero	Discharge from factories and dry cleaners	Some people who drink water co tetrachloroethylene in excess of the MCL ov years could have problems with their liver, and m an increased risk of getting cancer.
uene (ppm)	1	No conversion necessary	1	1	Discharge from petroleum factories	Some people who drink water containing toluen excess of the MCL over many years cou problems with their nervous system, kidneys, or l
4-trichlorobenzene b)	0.07	1000	70	70	Discharge from textile-finishing factories	Some people who drink water containing trichlorobenzene well in excess of the MCL ov years could experience changes in their adrenal g
1-trichloroethane b)	0.2	1000	200	200	Discharge from metal degreasing sites and other factories	Some people who drink water containing trichloroethane in excess of the MCL over ma could experience problems with their liver, system, or circulatory system.
2-trichloroethane b)	0.005	1000	5	3	Discharge from industrial chemical factories	Some people who drink water containing trichloroethane well in excess of the MCL ov years could have problems with their liver, kid immune systems.
hloroethylene (ppb)	0.005	1000	5	zero	Discharge from metal degreasing sites and other factories	Some people who drink water co trichloroethylene in excess of the MCL over ma could experience problems with their liver and m an increased risk of getting cancer.
yl chloride (ppb)	0.002	1000	2	zero	Leaching from PVC piping; discharge from plastics factories	Some people who drink water containing vinyl in excess of the MCL over many years may increased risk of getting cancer.

taminant CR units	Traditional MCL in mg/l, except where noted	To convert for CCR, multiply by	MCL in CCR units	MCLG in CCR units	Major sources in drinking water	Health effects language
enes [total] (ppm)	10	No conversion necessary	10	10	Discharge from petroleum factories; discharge from chemical factories	Some people who drink water containing xy excess of the MCL over many years could ex damage to their nervous system.
ioactive contaminants						
a/photon emitters em/yr)	4 mrem/yr	No conversion necessary	4	zero	Decay of natural and man-made deposits	Certain minerals are radioactive and may emit radiation known as photons and beta radiation people who drink water containing beta part photon radioactivity in excess of the MCL ov years may have an increased risk of getting cance
ha emitters [gross a] (pci/l)	15 pCi/L	No conversion necessary	15	zero	Erosion of natural deposits	Certain minerals are radioactive and may emit a radiation known as alpha radiation. Some peo drink water containing alpha emitters in exces MCL over many years may have an increased getting cancer.
nbined radium [226 28] (pci/l)	5 pCi/L	No conversion necessary	5	zero	Erosion of natural deposits	Some people who drink water containing rad or 228 in excess of the MCL over many years m an increased risk of getting cancer.
nium (pCi/L)	30 ug/L	No conversion necessary	30	Zero	Erosion of natural deposits	Some people who drink water containing ura excess of the MCL over many years may increased risk of getting cancer and kidney toxici
nfection byproducts (DBP), byproduct precursors, and disinfectant residuals: where disinfection is used in the treatment of drinking water, disin bine with organic and inorganic matter present in water to form chemicals called disinfection byproducts (DBP). The department sets standards for co levels of disinfectants and DBP in drinking water, including trihalomethanes (THM) and haloacetic acids (HAA). See R 325.10610, R 325.10610a .10719e for disinfection byproduct MCLs, disinfectant MRDLs, and related monitoring requirements.						
al trihalomethanes HM] (ppb)	0.10/ 0.080*	1000	100/80*	N/A	By-product of drinking water disinfection	Some people who drink water co trihalomethanes in excess of the MCL over ma may experience problems with their liver, kid central nervous system, and may have an increa of getting cancer.
	* The MCL for total trihalomethanes is the sum of the concentrations of the individual trihalomethanes. Different MCLs for TTHM apply to different types of systems. See the footnote in R 325.10610(1).					
oacetic acids AAs) (ppb)	0.060*	1000	60*	N/A	By-product of drinking water disinfection	Some people who drink water containing ha acids in excess of the MCL over many years m an increased risk of getting cancer.
	* The MCL for haloacetic acids is the sum of the concentrations of the individual haloacetic acids.					
mate (ppb)	0.010	1000	10	zero	By-product of drinking water disinfection	Some people who drink water containing bro excess of the MCL over many years may increased risk of getting cancer.
oramines (ppm)	MRDL = 4	No conversion necessary	MRDL = 4	MRDLG = 4	Water additive used to control microbes	Some people who use water containing chlorami in excess of the MRDL could experience effects to their eyes and nose. Some people wh water containing chloramines well in excess MRDL could experience stomach discomfort or a
orine (ppm)	MRDL = 4	No conversion necessary	MRDL = 4	MRDLG = 4	Water additive used to control microbes	Some people who use water containing chlorine excess of the MRDL could experience irritating to their eyes and nose. Some people who drin containing chlorine well in excess of the MRD experience stomach discomfort.

taminant CR units	Traditional MCL in mg/l, except where noted	To convert for CCR, multiply by	MCL in CCR units	MCLG in CCR units	Major sources in drinking water	Health effects language
orite (ppm)	1	No conversion necessary	1	0.8	By-product of drinking water disinfection	Some infants and young children who drin containing chlorite in excess of the MCL experience nervous system effects. Similar effe occur in fetuses of pregnant women who drin containing chlorite in excess of the MCL. Some may experience anemia.
orine dioxide (ppb)	MRDL = 0.8	1000	MRDL = 800	MRDLG = 800	Water additive used to control microbes	Some infants and young children who drin containing chlorine dioxide in excess of the could experience nervous system effects. Simila may occur in fetuses of pregnant women wh water containing chlorine dioxide in excess MRDL. Some people may experience anemia.
	Add the following only to public notification where any 2 consecutive daily samples taken at the entrance to the distribution sy above the MRDL: "The chlorine dioxide violations reported today are the result of exceedances at the treatment facility only, no the distribution system which delivers water to consumers. Continued compliance with chlorine dioxide levels within the dis system minimizes the potential risk of these violations to consumers." Add the following only to public notification where one or more distribution system samples are above the MRDL: "The chlorine violations reported today include exceedances of the drinking water standard within the distribution system which delivers consumers. Violations of the chlorine dioxide standard within the distribution system may harm human health based on sh exposures. Certain groups, including fetuses, infants, and young children, may be especially susceptible to nervous system effe excessive chlorine dioxide exposure."					
al organic carbon OC - control of DBP cursors] (ppm)	TT	No conversion necessary	TT	None	Naturally present in the environment	Total organic carbon (TOC) has no health However, total organic carbon provides a mediu formation of disinfection byproducts. These by include trihalomethanes (THM) and haloacet (HAA). Drinking water containing these bypro excess of the MCL may lead to adverse health liver or kidney problems, or nervous system effe may lead to an increased risk of getting cancer.
er treatment techniques						
ylamide	TT	No conversion necessary	TT	zero	Added to water during sewage/ wastewater treatment	Some people who drink water containing high l acrylamide over a long period of time cou problems with their nervous system or blood, a have an increased risk of getting cancer.
chlorohydrin	TT	No conversion necessary	TT	zero	Discharge from industrial chemical factories; an impurity of some water treatment chemicals	Some people who drink water containing high l epichlorohydrin over a long period of tim experience stomach problems, and may h increased risk of getting cancer.

History: 1954 ACS 94, Eff. Jan. 12, 1978; 1979 AC; 1989 MR 8, Eff.Sept. 13, 1989; 2003 MR 2, Eff. Jan. 29, 2003; 2005 MR 8, Eff. Apr. 29, 2005.

R 325.10406
Source: 2003 AACS.

R 325.10407
Source: 2003 AACS.

R 325.10408
Source: 2003 AACS.

R 325.10408a
Source: 2003 AACS.

R 325.10408b Special notice for nitrate exceedances above MCL by noncommunity water systems (NCWS); permission granted by department.
Rule 408b. (1) The supplier of a noncommunity water system granted permission by the department under R 325.10604c(3) to exceed the nitrate MCL shall provide notice to persons served according to the requirements for a tier 1 notice under R 325.10402(1) and (2).
(2) Noncommunity water systems granted permission by the department to exceed the nitrate MCL under R 325.10604c(3) shall provide continuous posting of the fact that nitrate levels exceed 10 mg/l and the potential health effects of exposure, according to the requirements for tier 1 notice delivery under R 325.10402(3) and the content requirements under R 325.10405.
History: 2003 MR 2, Eff. Jan. 29, 2003; 2005 MR 8, Eff. Apr. 29, 2005.

R 325.10409
Source: 2003 AACS.

R 325.10410
Source: 2002 AACS.

R 325.10411
Source: 2003 AACS.

R 325.10412
Source: 2003 AACS.

R 325.10413
Source: 2003 AACS.

R 325.10414 Annual consumer confidence reporting; required additional health information.
Rule 414. (1) All reports shall prominently display the following language: "Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people may seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791)."
(2) A supply that detects arsenic at levels above 0.005 mg/l and up to and including 0.010 mg/l shall do either of the following:
(a) Include in its report a short informational statement about arsenic, using language, such as, "While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems."
(b) Write its own educational statement, but only in consultation with the department.
(3) A supply that detects nitrate at levels above 5 mg/l, but below the MCL shall do either of the following:
(a) Include a short informational statement about the impacts of nitrate on children using language, such as, "Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you are encouraged to ask advice from your health care provider."
(b) Write its own educational statement, but only in consultation with the department.
(4) Supplies that detect lead above the action level in more than 5%, and up to and including 10%, of homes sampled shall do either of the following:
(a) Include a short informational statement about the special impact of lead on children using language, such as, "Infants and young children are typically more vulnerable to lead in drinking water than the general population.

It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4791)."
(b) Write its own educational statement, but only in consultation with the department.
(5) Beginning in the report due by July 1, 2002 and ending January 22, 2006, a supplier of a community water system that detects arsenic above 0.010 mg/l and up to and including 0.05 mg/l shall include the arsenic health effects language prescribed by table 1 of R 325.10405.
History: 2001 MR 9, Eff. May 17, 2001; 2003 MR 2, Eff. Jan. 29, 2003; 2005 MR 8, Eff. Apr. 29, 2005.

R 325.10415
Source: 2003 AACS.

R 325.10416.
Source: 2003 AACS.

R 325.10417
Source: 2003 AACS.

R 325.10418
Source: 2003 AACS.

R 325.10419
Source: 2003 AACS.

R 325.10420
Source: 2003 AACS.

PART 5. TYPES OF PUBLIC WATER SUPPLIES

R 325.10505
Source: 1991 AACS.

R 325.10506
Source: 1991 AACS.

PART 6. STATE DRINKING WATER STANDARDS AND ANALYTICAL TECHNIQUES

R 325.10601
Source: 1998-2000 AACS.

R 325.10601a
Source: 1998-2000 AACS.

R 325.10602
Source: 1993 AACS.

R 325.10603 Radionuclides; MCLs; applicability.
Rule 603. (1) Community water supplies, also known as "supplies" in this rule and R 325.10604, shall comply with the MCLs in this rule and compliance shall be determined under R 325.10604.
(2) The MCLs for radionuclides are all of the following:
(a) The maximum contaminant level for combined radium 226 and radium 228 is 5 picoCurries per liter (pCi/l). The combined radium-226 and radium-228 value is determined by the addition of the results of the analysis for radium-226 and the analysis for radium-228.
(b) The maximum contaminant level for gross alpha particle activity, including radium 226, but excluding radon and uranium, is 15 pCi per liter.
(c) Both of the following apply to the MCL for beta particle and photon radioactivity:

(i) The average annual concentration of beta particle and photon radioactivity from man-made radionuclides in drinking water shall not produce an annual dose equivalent to the total body or any internal organ greater than 4 millirems per year.
(ii) Except for the radionuclides listed in table 1 of this rule, the concentration of man-made radionuclides causing 4 millirems total body or organ dose equivalents shall be calculated on the basis of a 2-liter-per-day drinking water intake using the 168-hour data listed in the publication entitled "maximum permissible body burdens and maximum permissible concentration of radionuclides in air or water for occupational exposure," nbs (national bureau of standards) handbook 69, as amended August, 1963, United States department of commerce, which is adopted by reference in R 325.10112. If 2 or more radionuclides are present, then the sum of their annual dose equivalent to the total body or to any organ shall not be more than 4 millirem per year.

Table 1 Average Annual Concentrations Assumed to Produce a Total Body or Organ Dose of 4 Millirem Per Year

Radionuclide	Critical organ	pCi per liter
Tritium	Total body	20,000
Strontium-90	Bone marrow	8

(d) The maximum contaminant level for uranium is 30 micrograms per liter (ug/l).
History: 1954 ACS 94, Eff. Jan. 12, 1978; 1979 AC; 1993 MR 6, Eff. July 2, 1993; 2005 MR 6, Eff. Apr. 6, 2005.

R 325.10604 Radionuclides; compliance requirements.
Rule 604. (1) Compliance with R 325.10603 shall be determined based on the analytical result or results obtained at each sampling point. If 1 sampling point is in violation of an MCL, then the supply is in violation of the MCL. All of the following provisions apply:
(a) For supplies monitoring more than once per year, compliance with the MCL is determined by a running annual average at each sampling point. If the average of any sampling point is greater than the MCL, then the supply is out of compliance with the MCL.
(b) For supplies monitoring more than once per year, if any sample result causes the running average to exceed the MCL at any sample point, then the supply is out of compliance with the MCL immediately.
(c) Supplies shall include all samples taken and analyzed under this rule, R 325.10603, R 325.10725, R 325.10726, R 325.10728, R 325.10729, and R 325.10730 in determining compliance, even if that number is greater than the minimum required.
(d) If a supply does not collect all required samples when compliance is based on a running annual average of quarterly samples, then compliance shall be based on the running average of the samples collected.
(e) If a sample result is less than the detection limit, then zero shall be used to calculate the annual average, unless a gross alpha particle activity is being used instead of radium-226, or uranium, or both. If the gross alpha particle activity result is less than the detection limit, then half the detection limit shall be used to calculate the annual average.
(2) If the department requires confirmation samples under R 325.10725(3), then the results of the initial and confirmation samples shall be averaged for use in compliance determinations.
(3) The department may delete results of obvious sampling or analytic errors.
(4) To determine compliance with the MCLs in R 325.10603, averages of data shall be used and shall be rounded to the same number of significant figures as the MCL for the contaminant.
History: 1954 ACS 94, Eff. Jan. 12, 1978; 1979 AC; 1993 MR 6, Eff. July 2, 1993; 1998 MR 3, Eff. Apr. 8, 1998; 2005 MR 6, Eff. Apr. 6, 2005.

R 325.10604a
Source: 2003 AACS.
R 325.10604b MCLs for volatile organic chemicals other than total trihalomethanes.
Rule 604b. (1) The maximum contaminant levels and effective dates for volatile organic chemicals in table 1 of this rule apply to community and nontransient noncommunity water supplies.

Table 1 MCLs for volatile organic chemicals

Contaminant	Maximum Contaminant Level in mg/l	Effective Date
Benzene	0.005	January 9, 1989.
Vinyl chloride	0.002	January 9, 1989.
Carbon tetrachloride	0.005	January 9, 1989.
1,2-dichloroethane	0.005	January 9, 1989.
Trichloroethylene	0.005	January 9, 1989.
1,1-dichloroethylene	0.007	January 9, 1989.
1,1,1-trichloroethane	0.20	January 9, 1989.
para-dichlorobenzene	0.075	January 9, 1989.
cis-1,2-dichloroethylene	0.07	July 30, 1992.
1,2-dichloropropane	0.005	July 30, 1992.
Ethylbenzene	0.7	July 30, 1992.
Monochlorobenzene	0.1	July 30, 1992.
0-dichlorobenzene	0.6	July 30, 1992.
Styrene	0.1	July 30, 1992.
Tetrachloroethylene	0.005	July 30, 1992.
Toluene	1	July 30, 1992.
trans-1, 2-dichloroethylene	0.1	July 30, 1992.
Xylenes (total)	10	July 30, 1992.
Dichloromethane	0.005	January 17, 1994.
1,2,4-Trichlorobenzene	0.07	January 17, 1994.
1,1,2-Trichloroethane	0.005	January 17, 1994.

(2) Compliance with the MCLs in table 1 of this rule shall be determined based on the analytical results obtained at each sampling point. If 1 sampling point is in violation of the MCL, then the supply is in violation of the MCL. All of the following provisions apply:
(a) For supplies monitoring more than once per year, compliance with the MCL is determined by a running annual average at each sampling point.
(b) Supplies monitoring annually or less frequently whose sample result exceeds the MCL shall begin quarterly sampling. Compliance with the MCL shall be based on the running annual average. For the purpose of calculating the running annual average, the initial exceedance shall be considered the result for the first quarter. If the department requires a confirmation sample under R 325.10716(15), then the average of the initial exceedance and the confirmation sample shall be considered the result for the first quarter. The supply shall not be considered in violation of the MCL until it has completed 1 year of quarterly sampling.
(c) If any sample result causes the running annual average to exceed the MCL at any sampling point, then the supply is out of compliance with the MCL immediately.
(d) If a supply fails to collect the required number of samples, then compliance shall be based on the total number of samples collected.
(e) If a sample result is less than the detection limit, then zero shall be used to calculate the annual average.
History: 1989 MR 8, Eff. Sept. 13, 1989; 1993 MR 6, Eff. July 2, 1993; 1994 MR 12, Eff. Jan. 5, 1995; 2005 MR 6, Eff. Apr. 6, 2005.

R 325.10604c MCL for inorganic chemicals.
Rule 604c. (1) Except as specified, the maximum contaminant levels and effective dates for inorganic chemicals in table 1 of this rule apply to community water and nontransient noncommunity water supplies.

Table 1 MCLs for inorganic chemicals

Contaminant	Maximum Contaminant Level in mg/l	Effective Date
Antimony	0.006	January 17, 1994.
Arsenic[1]	0.010	[effective date of this rule]
Asbestos	7 million fibers per liter (longer than 10 um)	July 30, 1992.
Barium	2	January 1, 1993.

Beryllium	0.004	January 17, 1994.
Cadmium	0.005	July 30, 1992.
Chromium	0.1	July 30, 1992.
Cyanide (as free cyanide)	0.2	January 17, 1994.
Fluoride[2]	4	October 2, 1987.
Mercury	0.002	July 30, 1992.
Nickel	MCL withdrawn	May 30, 2002
Nitrate (as Nitrogen)[3]	10	July 30, 1992.
Nitrite (as Nitrogen)[3]	1	July 30, 1992.
Total Nitrate and Nitrite (as Nitrogen)[3]	10	July 30, 1992.
Selenium	0.05	July 30, 1992.
Thallium	0.002	January 17, 1994.

[1] The MCL of 0.010 mg/l is effective for compliance purposes on January 23, 2006 for community and nontransient noncommunity water supplies. Until January 23, 2006, the MCL of 0.05 mg/l applies only to community water supplies. Sampling results shall be reported to the nearest 0.001 mg/l beginning January 23, 2006. After January 23, 2006 this footnote no longer applies.
[2] The MCL and effective date apply to only community water supplies.
[3] The MCLs and effective dates apply to community and noncommunity water supplies.

(2) Compliance with the MCL requirements of this rule shall be determined based on the analytical results that are obtained at each sampling point as specified in R 325.10710. If 1 sampling point is in violation of an MCL, then the supply is in violation of the MCL. All of the following provisions apply:
(a) For supplies monitoring more than once per year, compliance with the MCL for antimony, arsenic, asbestos, barium, beryllium, cadmium, chromium, cyanide, fluoride, mercury, nickel, selenium, or thallium is determined by a running annual average at each sampling point.
(b) Supplies monitoring annually or less frequently whose sample result exceeds the MCL for antimony, arsenic, asbestos, barium, beryllium, cadmium, chromium, cyanide, fluoride, mercury, nickel, selenium, or thallium shall begin quarterly sampling. Compliance with the MCL shall be based on the running annual average. For the purpose of calculating the running annual average, the initial exceedance shall be considered the result for the first quarter. If the department requires a confirmation sample under R 325.10710(9), then the average of the initial exceedance and the confirmation sample shall be considered the result for the first quarter. The supply shall not be considered in violation of the MCL until it has completed 1 year of quarterly sampling.
(c) If any sample result causes the running annual average to exceed the MCL at any sampling point, then the supply is out of compliance with the MCL immediately.
(d) If a supply fails to collect the required number of samples, then compliance shall be based on the total number of samples collected.
(e) If a sample result is less than the detection limit, then zero shall be used to calculate the annual average.
(f) Compliance with the MCLs for nitrate and nitrite is determined based on 1 sample if the levels of these contaminants are below the MCLs. If the level of nitrate or nitrite or the combination of nitrate and nitrite is more than the MCLs in the initial sample, then a confirmation sample is required under R 325.10710(9)(b) and (c), and compliance shall be determined based on the average of the initial and confirmation samples.
(3) The department may allow nitrate levels above 10 milligrams per liter but not more than 20 milligrams per liter in a noncommunity water supply if the supply demonstrates, to the satisfaction of the department, all of the following:
(a) A permanent alternate source of water meeting state drinking water standards can not be obtained.
(b) The water will not be available to children under 6 months of age.
(c) Water meeting state drinking water standards, such as bottled water, will be provided to those who request it.
(d) There is continuous posting at all drinking water outlets available to the public that nitrate levels exceed 10 mg/l and the potential health effects of exposure as specified in part 4 of these rules.
(e) Adverse health effects are not documented.
History: 1989 MR 8, Eff. Sept. 13, 1989; 1993 MR 6, Eff. July 2, 1993; 1994 MR 12, Eff. Jan. 5, 1995; 2002 MR 10, Eff. May 30, 2002; 2005 MR 6, Eff. Arp. 6, 2005.

R 325.10604d MCLs for synthetic organic chemicals.
Rule 604d. (1) The maximum contaminant levels and effective dates for synthetic organic chemicals in table 1 of this rule apply to community and nontransient, noncommunity water supplies.

Table 1 MCLs for synthetic organic chemicals

Contaminant	Maximum Contaminant Level in mg/l	Effective Date
Alachlor	0.002	July 30, 1992.
Aldicarb	0.003	July 30, 1992.
Aldicarb sulfoxide	0.004	July 30, 1992.
Aldicarb sulfone	0.002	July 30, 1992.
Atrazine	0.003	July 30, 1992.
Benzo(a)pyrene	0.0002	January 17, 1994.
Carbofuran	0.04	July 30, 1992.
Chlordane	0.002	July 30, 1992.
Dalapon	0.2	January 17, 1994.
Di(2-ethylhexyl)adipate	0.4	January 17, 1994.
Di(2-ethylhexyl)phthalate	0.006	January 17, 1994.
Dibromochloropropane	0.0002	July 30, 1992.
Dinoseb	0.007	January 17, 1994.
Diquat	0.02	January 17, 1994.
Endothall	0.1	January 17, 1994.
Endrin	0.002	August 17, 1992.
Ethylene dibromide	0.00005	July 30, 1992.
Glyphosate	0.7	January 17, 1994.
Heptachlor	0.0004	July 30, 1992.
Heptachlor epoxide	0.0002	July 30, 1992.
Hexachlorobenzene	0.001	January 17, 1994.
Hexachlorocyclopentadiene	0.05	January 17, 1994.
Lindane	0.0002	July 30, 1992.
Methoxychlor	0.04	July 30, 1992.
Oxamyl (vydate)	0.2	January 17, 1994.
Pentachlorophenol	0.001	July 30, 1992.
Picloram	0.5	January 17, 1994.
Polychlorinated biphenyls	0.0005	July 30, 1992.
Simazine	0.004	January 17, 1994.
Toxaphene	0.003	July 30, 1992.
2,3,7,8-TCDD (dioxin)	3×10^{-8}	January 17, 1994.
2,4-D	0.07	July 30, 1992.
2,4,5-TP silvex	0.05	July 30, 1992.

(2) Compliance with the MCLs in table 1 of this rule shall be determined based on the analytical results obtained at each sampling point. If 1 sampling point is in violation of an MCL, then the supply is in violation of the MCL. All of the following provisions apply:
(a) For supplies monitoring more than once per year, compliance with the MCL is determined by a running annual average at each sampling point.
(b) Supplies monitoring annually or less frequently whose sample results exceed the regulatory detection level as defined in R 325.10605 shall begin quarterly sampling. Compliance with the MCL shall be based on the running annual average. For the purpose of calculating the running annual average, the initial exceedance shall be the result for the first quarter. If the department requires a confirmation sample under R 325.10717(12), then the average of the initial exceedance and the confirmation sample shall be the result for the first quarter. The supply shall not be in violation of the MCL until it has completed 1 year of quarterly sampling.
(c) If any sample result causes the running annual average to exceed the MCL at any sampling point, then the supply is out of compliance with the MCL immediately.
(d) If a supply fails to collect the required number of samples, then compliance shall be based on the total

number of samples collected.
(e) If a sample result is less than the detection limit, then zero shall be used to calculate the annual average.
History: 1993 MR 6, Eff. July 2, 1993; 1994 MR 12, Eff. Jan. 5, 1995; 1998 MR 3, Eff. Apr. 8, 1998; 2005 MR 6, Eff. Apr. 6, 2005.

R 325.10604e
Source: 1993 AACS.

R 325.10604f
Source: 2002 AACS.

R 325.10605 Analytical techniques and sample collection procedures; incorporation by reference.
Rule 605. The analytical techniques and sample collection procedures used in the determination of compliance with the state drinking water standards for microbiological contaminants, inorganic chemical contaminants, organic chemical contaminants, including maximum TTHM potential, turbidity, residual disinfectants, disinfection byproducts, disinfection byproduct precursors, temperature, pH, conductivity, alkalinity, and radioactivity which are contained in 40 C.F.R. parts 141 and 143, (2004, 2003, 2002, 2001), and which have been promulgated by the United States EPA under authority of the safe drinking water act of 1974 (public law 93-523), the safe drinking water act amendments of 1986 (public law 99-339), and the safe drinking water act amendments of 1996 (public law 104-182), 42 U.S.C. 300f et seq. are adopted by reference in these rules. The adopted material is available from the superintendent of documents at the address in R 325.10116(b) for a cost of $61.00 at the time of adoption of these rules. The adopted material is available for inspection, or copies are available at no cost from the offices of the department at the address in R 325.10116(a).
History: 1954 ACS 94, Eff. Jan. 12, 1978; 1979 AC; 1991 MR 11, Eff. Nov. 22, 1991; 1993 MR 6, Eff. July 2, 1993; 1998 MR 3, Eff. Apr. 8, 1998; 2000 MR 19, Eff. Dec. 8, 2000; 2003 MR 2, Eff. Jan. 29, 2003; 2005 MR 6, Eff Apr. 6, 2005.

R 325.10605a
Source: 1998-2000 AACS.

R 325.10605b
Source: 1998-2000 AACS.

R 325.10605c
Source: 1998-2000 AACS.

R 325.10605d
Source: 1998-2000 AACS.

R 325.10605e
Source: 1998-2000 AACS.

R 325.10606
Source: 1998-2000 AACS.

R 325.10607
Source: 1998-2000 AACS.

R 325.10608
Source: 1998-2000 AACS.

R 325.10609
Source: 1998-2000 AACS.

R 325.10610 MCLs for disinfection byproducts.
Rule 610. (1) The maximum contaminant levels (MCLs) for disinfection byproducts are as follows:

Disinfection byproduct	MCL (mg/l)
Total trihalomethanes (TTHM)	0.080
Haloacetic acids (five) (HAA5)	0.060
Bromate	0.010
Chlorite	1.0

(2) This rule, R 325.10610a, R 325.10610b, R 325.10610c, R 325.10719e, and R 325.10719f apply to community and nontransient noncommunity water systems that add a chemical disinfectant to the water in any part of the drinking water treatment process and to transient noncommunity water systems adding chlorine dioxide. Transient noncommunity water systems are only required to comply with the chlorine dioxide requirements.
History: 2003 MR 2, Eff. Jan. 29, 2003; 2005 MR 6, Eff. Apr. 6, 2005.

R 325.10610a
Source: 2003 AACS.

R 325.10610b
Source: 2003 AACS.

R 325.10610c
Source: 2003 AACS.

R 325.10611 Filtration and disinfection.
Rule 611. (1) A supplier of a public water system shall comply with R 325.10807, R 325.10808, R 325.10812, R 325.10813, R 325.10816, R 325.10817, R 325.10818, R 325.10819, R 325.10820, and R 325.10822, shall demonstrate a safe microbiological water quality history, and may be required to demonstrate stability in other measurements of water quality; or the supplier shall provide complete treatment.
(2) The department may grant a deviation from subrule (1) of this rule if the supplier can demonstrate that the system is capable of producing finished water that meets state drinking water standards applicable to systems using only ground water not under the direct influence of surface water.
(3) Suppliers of subpart H systems shall comply with the treatment techniques of this rule, R 325.10611a, R 325.10611b, R 325.10611c, the sampling requirements of R 325.10720, the reporting and recordkeeping requirements of R 325.10720a and R 325.11506, except where noted, and the disinfection profiling and benchmarking requirements in R 325.10722. The treatment technique requirements consist of installing and properly operating water treatment processes that reliably achieve all of the following applicable removal or inactivation percentages between a point where the raw water is not subject to recontamination by surface water runoff and a point downstream before or at the first customer:
(a) Not less than 99.9% (3 log) inactivation or the removal of giardia lamblia cysts and not less than 99.99% (4 log) inactivation or the removal of viruses.
(b) A 99% (2 log) removal of cryptosporidium oocysts for systems serving 10,000 or more people. This subdivision applies to subpart H systems serving 10,000 or more people until December 31, 2004 and applies to all subpart H systems beginning January 1, 2005.
(4) If a supplier of a public water system does not currently provide complete treatment and if the department determines that a system requires complete treatment either under subrules (1) and (2) of this rule or because the system uses surface water or groundwater under the direct influence of surface water, then the supplier shall provide complete treatment within 18 months of the department's determination and shall provide interim disinfection and monitoring as considered necessary by the department. During the interim disinfection period, systems requiring complete treatment under subrules (1) and (2) of this rule shall demonstrate safe microbiological water quality. Subpart H systems are subject to subrule (3) of this rule within 18 months or until treatment is installed, whichever occurs first. During the interim disinfection period, subpart H systems shall also comply with both of the following provisions:
(a) The supplier shall collect at least 1 sample from the source water every 4 hours while the source is being utilized and have the sample analyzed for turbidity.
(b) If the result of 1 or more samples taken under subdivision (a) of this subrule is more than 1 ntu, then within 24 hours of the determination that a turbidity measurement is more than 1 ntu, the supplier shall collect at least

1 sample near the first service connection and have the sample analyzed for total coliform. Sample results from the coliform monitoring shall be included in determining compliance with the total coliform standard.
History: 2003 MR 2, Eff. Jan. 29, 2003; 2005 MR 6, Eff. Apr. 6, 2005.

R 325.10611a
Source: 2003 AACS.

R 325.10611b Filtration and disinfection; filtration.
Rule 611b. (1) Suppliers of subpart H systems shall comply with all of the following filtration requirements, as applicable:

For a system using...	*(i) The turbidity level of representative samples of a system's filtered water shall at no time exceed...*	*(ii) Not less than 95% of the measurements taken each month shall be less than or equal to...*
(a) Conventional, direct, or membrane filtration	1 ntu / 5 ntu[1]	0.3 ntu / 0.5 ntu[2]
(b) Slow sand or diatomaceous earth filtration	5 ntu	1 ntu
(c) An alternative filtration technology approved by the department, based on the demonstration described in subrule (3) of this rule.	The department-set turbidity level, not to exceed 5 ntu, based on the demonstration described in subrule (3) of this rule.	The department-set turbidity level, not to exceed 1 ntu, based on the demonstration described in subrule (3) of this rule.

[1] The 1 ntu level applies to systems serving 10,000 or more people and the 5 ntu level applies to systems serving fewer than 10,000 people until December 31, 2004. Beginning January 1, 2005, the 5 ntu level and this footnote no longer apply and all systems subject to this rule shall comply with the 1 ntu level.
[2] The 0.3 ntu level applies to systems serving 10,000 or more people and the 0.5 ntu level applies to systems serving fewer than 10,000 people until December 31, 2004. Beginning January 1, 2005, the 0.5 ntu level and this footnote no longer apply and all systems subject to this rule shall comply with the 0.3 ntu level.
(2) A system using lime softening, where the final pH exceeds 8.3, may acidify representative samples before turbidity analysis using a protocol approved by the department. The approved protocol shall require the use of a concentrated acid in sufficient quantities to lower the pH to less than 8.3, dissolve only calcium carbonate and magnesium hydroxide, and not to dilute the representative sample.
(3) A public water system may use a filtration technology not listed in subrule (1)(a) or (b) of this rule if the supplier demonstrates to the department, using pilot plant studies or other means, that the alternative filtration technology, in combination with disinfection treatment that meets the requirements of R 325.10611a(2), consistently achieves the removal or inactivation percentages in R 325.10611(3), and the department approves the use of the filtration technology. For each approval, the department will set turbidity performance requirements that the system shall meet not less than 95% of the time and the system shall not exceed, at any time, at a level in subrule (1)(c) of this rule that consistently achieves the removal or inactivation percentages in R 325.10611(3).
History: 2003 MR 2, Eff. Jan. 29, 2003; 2005 MR 6, Eff. Apr. 6, 2005.

R 325.10611c Filtration and disinfection; filter backwash recycling; treatment technique.
Rule 611c. A subpart H system that employs conventional filtration or direct filtration treatment and that recycles spent filter backwash water, thickener supernatant, or liquids from dewatering processes shall return these flows through the processes of a system's existing conventional or direct filtration system as defined in R 325.10103 and R 325.10104, or at an alternate location approved by the department. If capital improvements are required to modify the recycle location to meet this requirement, then all capital improvements shall be completed not later than June 8, 2006.
History: 2005 MR 6, Eff. Apr. 6, 2005.

PART 7. SURVEILLANCE, INSPECTION, AND MONITORING

R 325.10702

Source: 2003 AACS.

R 325.10704
Source: 2003 AACS.

R 325.10705
Source: 2002 AACS.

R 325.10706
Source: 2003 AACS.

R 325.10707
Source: 1991 AACS.

R 325.10707a
Source: 1998-2000 AACS.

R 325.10707b
Source: 2003 AACS.

R 325.10708
Source: 1991 AACS.

R 325.10709
Source: 1998-2000 AACS.

R 325.10710 Collection and analysis of samples for inorganic chemicals.
Rule 710. (1) Suppliers of water of community and noncommunity water systems shall collect water samples and cause analyses to be made for inorganic chemicals to determine compliance with the state drinking water standards in R 325.10604c. Suppliers shall monitor at the time designated by the department during each compliance period.
(2) The department may require samples to be collected and analyzed at a prescribed frequency for inorganic chemicals for type III public water supplies.
(3) Beginning in the initial compliance period, suppliers of community and nontransient, noncommunity water systems shall monitor under this rule to determine compliance with the MCLs for inorganic contaminants in R 325.10604c. Beginning in the initial compliance period, suppliers of transient, noncommunity water systems shall monitor under this rule to determine compliance with the nitrate, nitrite, and total nitrate and nitrite MCLs in R 325.10604c.
(4) Suppliers shall monitor in the following manner:
(a) Suppliers of groundwater systems shall take at least 1 sample at every entry point to the distribution system representative of each well after treatment, also known as sampling point. The supplier shall take each sample at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant.
(b) Suppliers of surface water systems, or combined surface water and groundwater systems, shall take at least 1 sample at every entry point to the distribution system after the application of treatment or in the distribution system at a sampling point that is representative of each source after treatment, also known as sampling point. The supplier shall take each sample at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant.
(c) If a system draws water from more than 1 source and the sources are combined before distribution, then the supplier shall sample at an entry point to the distribution system during periods when water is representative of all sources being used.
(d) The total number of samples that shall be analyzed to meet the requirements of this rule may be reduced by the department when compositing of samples is utilized. Provisions for compositing of samples are as follows:
(i) Composite samples from a maximum of 5 sampling points are allowed.
(ii) Compositing of samples shall be done in the laboratory.
(iii) If the concentration in the composite sample is greater than or equal to 1/5 of the MCL of any inorganic chemical, then a follow-up sample shall be collected within 14 days from each sampling point included in the

composite. These samples shall be analyzed for the contaminants that exceeded 1/5 of the MCL in the composite sample.
(iv) Compositing shall only be performed using samples from within a single water system.
(v) If duplicates of the original sample taken from each sampling point used in the composite are available, then the supplier may use these instead of resampling. The duplicates shall be analyzed and the results reported to the department within 14 days after completing analysis of the composite sample if the holding time of the sample is not exceeded.
(5) The monitoring frequency conducted to determine compliance with the MCLs in R 325.10604c for antimony, arsenic, barium, beryllium, cadmium, chromium, cyanide, fluoride, mercury, nickel, selenium, and thallium shall be as follows:
(a) Suppliers of groundwater systems shall take 1 sample at each sampling point during each compliance period. Suppliers of surface water systems, or combined surface water and groundwater systems, shall take 1 sample annually at each sampling point.
(b) A supplier may apply to the department for a waiver from the monitoring frequencies specified in subdivision (a) of this subrule. The department may grant a waiver for monitoring cyanide if the department determines the system is not vulnerable due to the lack of any industrial source of cyanide. Waiver provisions are as follows:
(i) A supplier shall take at least 1 sample while the waiver is effective.
(ii) The term during which a waiver is effective shall not be more than 1 compliance cycle.
(iii) A waiver may be granted if a surface water supplier has monitored annually for not less than 3 years or a groundwater supplier has conducted not less than 3 rounds of monitoring. At least 1 sample shall have been taken since January 1, 1990. Both surface and groundwater suppliers shall demonstrate that all previous analytical results were less than the MCL. Supplies that use a new water source are not eligible for a waiver until 3 rounds of monitoring from the new source have been completed.
(iv) The department shall consider all of the following factors to determine the appropriate reduced monitoring frequency:
(A) Reported concentrations from all previous monitoring.
(B) The degree of variation in reported concentrations.
(C) Other factors that may affect contaminant concentrations, such as changes in any of the following:
(1) Groundwater pumping rates.
(2) The system's configuration.
(3) The system's operating procedures.
(4) Stream flows or characteristics.
(v) A waiver shall be in writing and shall set forth the basis for the determination. The determination may be initiated by the department or upon an application by the public water supplier specifying the basis for its request. The department may revise the determination based on new data.
(c) Suppliers of systems exceeding the MCLs in R 325.10604c shall monitor quarterly beginning in the next quarter after the violation occurred. The department may decrease the quarterly monitoring requirement to the frequencies specified in subdivisions (a) and (b) of this subrule if it has determined that the system is reliably and consistently below the MCL. A groundwater supplier shall take not fewer than 2 quarterly samples and a surface water supplier shall take not fewer than 4 quarterly samples before the department's determination.
(d) All new supplies or supplies that use a new source of water shall demonstrate compliance with the MCLs before serving water to the public except as otherwise required in this subdivision. The supply shall also comply with the initial sampling frequencies specified by the department to ensure a system can demonstrate compliance with the MCLs. Before January 23, 2006, new nontransient noncommunity water supplies or supplies that use a new source of water that exceed the arsenic MCL of 0.010 mg/l may use the source only if the supply complies with a consent agreement with the department stipulating a plan and schedule satisfactory to the department to meet the MCL.
(6) The following monitoring frequency shall be conducted to determine compliance with the MCL in R 325.10604c for asbestos:
(a) Suppliers of each community and nontransient, noncommunity water system shall monitor for asbestos during the first 3-year compliance period of each 9-year compliance cycle.
(b) If the supplier believes its water is not vulnerable to either asbestos contamination in its source water or asbestos contamination due to corrosion of asbestos-cement pipe, or both, then it may apply to the department for a waiver of the monitoring requirement in subdivision (a) of this subrule. If the department grants the waiver, then the supplier is not required to monitor. A waiver remains in effect until the completion of the

3-year compliance period. The department may grant a waiver based on a consideration of both of the following factors:
(i) Potential asbestos contamination of the water source.
(ii) The use of asbestos-cement pipe for finished water distribution and the corrosive nature of the water.
(c) A supplier of a system vulnerable to asbestos contamination due solely to the corrosion of asbestos-cement pipe shall take 1 sample at a tap served by asbestos-cement pipe and under conditions where asbestos contamination is most likely to occur.
(d) A supplier of a system vulnerable to asbestos contamination due solely to source water shall monitor under subrule (4) of this rule.
(e) A supplier of a system vulnerable to asbestos contamination due both to its source water supply and corrosion of asbestos-cement pipe shall take 1 sample at a tap served by asbestos-cement pipe and under conditions where asbestos contamination is most likely to occur.
(f) A supplier of a system exceeding the MCLs in R 325.10604c shall monitor quarterly beginning in the next quarter after a violation occurred.
(g) The quarterly monitoring requirement may be decreased by the department to the frequency specified in subdivision (a) of this subrule if the department determines that the system is reliably and consistently below the MCL. A groundwater supplier shall take a minimum of 2 quarterly samples and a surface water or combined surface water and groundwater supplier shall take not fewer than 4 quarterly samples before this determination.
(h) If monitoring data collected after January 1, 1990, are generally consistent with the requirements of this subrule, then that data may be used to satisfy the monitoring requirement for the initial compliance period.
(7) The monitoring frequency conducted to determine compliance with the MCLs in R 325.10604c for nitrate shall be as follows:
(a) Community water systems and nontransient, noncommunity water systems served by groundwater systems shall be monitored annually. Systems served by surface water shall be monitored quarterly.
(b) For community and nontransient, noncommunity water systems, the repeat monitoring frequency for groundwater systems shall be quarterly for at least 1 year following any 1 sample in which the concentration is 50% or more of the MCL. The sampling frequency for groundwater systems may be reduced by the department to annually after 4 consecutive quarterly samples are reliably and consistently less than the MCL.
(c) For community and nontransient, noncommunity water systems, the department may allow a surface water supplier to reduce the sampling frequency to annually if all analytical results from 4 consecutive quarters are less than 50% of the MCL. A surface water supplier shall return to quarterly monitoring if any 1 sample is 50% or more of the MCL.
(d) Suppliers of transient, noncommunity water systems shall monitor annually.
(e) After the initial round of quarterly sampling is completed, suppliers of community and nontransient, noncommunity water systems that are monitored annually shall take subsequent samples during the quarter or quarters which previously resulted in the highest analytical result.
(8) The monitoring frequency conducted to determine compliance with the MCLs in R 325.10604c for nitrite shall be as follows:
(a) A supplier of a community water system or a noncommunity water system shall take 1 sample at each sampling point during each compliance period.
(b) After the initial sample, suppliers of systems where an analytical result for nitrite is less than 50% of the MCL shall monitor at the frequency specified by the department.
(c) The repeat monitoring frequency for a system shall be quarterly for at least 1 year following any 1 sample in which the concentration is 50% or more of the MCL. The department may allow a supplier to reduce the sampling frequency to annually after determining the system is reliably and consistently less than the MCL.
(d) Suppliers monitoring annually shall take each subsequent sample during the quarter or quarters that previously resulted in the highest analytical result.
(9) Confirmation samples are required as follows:
(a) Where the results of sampling for any of the following indicate a level that is more than the MCL, the department may require the supply to collect 1 additional sample as soon as possible after the initial sample was taken, but not more than 2 weeks later, at the same sampling point and have it analyzed for the contaminant that was above the MCL:
(i) Antimony.
(ii) Arsenic.
(iii) Asbestos.

(iv)Barium.
(v) Beryllium.
(vi) Cadmium.
(vii) Chromium.
(viii)Cyanide.
(ix) Fluoride.
(x) Mercury.
(xi) Nickel.
(xii) Selenium.
(xiii) Thallium.
(b) Where nitrate or nitrite sampling results indicate a level that is more than the MCL, the supplier shall take a confirmation sample within 24 hours of the supplier's receipt of notification of the analytical results of the first sample. Suppliers that are unable to comply with the 24-hour sampling requirement shall immediately notify the persons served by the area served by the public water system under part 4 of these rules and shall analyze a confirmation sample within 2 weeks of notification of the analytical results of the first sample.
(c) If a confirmation sample required by the department is taken for any contaminant, then the results of the initial and confirmation sample shall be averaged. The resulting average shall be used to determine the system's compliance under R 325.10604c(2). Results of obvious sampling errors may be deleted by the department.
(10) The department may require more frequent monitoring than specified in this rule or may require confirmation samples for positive or negative results.
(11) Suppliers may apply to the department to conduct more frequent monitoring than the minimum monitoring frequencies specified in this rule.
History: 1954 ACS 94, Eff. Jan. 12, 1978; 1979 AC; 1993 MR 6, Eff. July 2, 1993; 1994 MR 12, Eff. Jan. 5, 1995; 1998 MR 3, Eff. Apr. 8, 1998; 2002 MR 10, Eff. May 30, 2002; 2005 MR 6, Eff. Apr. 6, 2005.

R 325.10710a
Source: 2002 AACS.

R 325.10710b
Source: 2002 AACS.

R 325.10710c
Source: 2002 AACS.

R 325.10710d
Source: 2002 AACS.

R 325.10711
Source: 1997 AACS.

R 325.10712
Source: 1997 AACS.

R 325.10713
Source: 1997 AACS.

R 325.10714
Source: 1997 AACS.

R 325.10715
Source: 1997 AACS.

R 325.10716 Collection and analysis of samples for VOCs.
Rule 716. (1) Beginning with the initial compliance period, suppliers of community and nontransient, noncommunity water supplies shall collect samples and cause analyses to be made under this rule for volatile organic chemicals to determine compliance with the state drinking water standards in R 325.10604b. Each supplier shall monitor at the time designated by the department within each compliance period. The department

may increase required monitoring where necessary to detect variations within a water system.
(2) For transient, noncommunity and type III public water supplies, the department may require samples to be collected and analyzed at prescribed frequencies for organic chemicals.
(3) Suppliers of groundwater systems shall take at least 1 sample at every entry point to the distribution system that is representative of each well after treatment, also known as sampling point. Each sample shall be taken at the same sampling point unless conditions make another sampling point more representative of each source, treatment plant, or within the distribution system.
(4) Suppliers of surface water systems or combined surface water and groundwater systems shall take at least 1 sample at points in the distribution system that are representative of each source or at each entry point to the distribution system after treatment, also known as sampling point. Each sample shall be taken at the same sampling point unless conditions make another sampling point more representative of each source, treatment plant, or within the distribution system.
(5) If the system draws water from more than 1 source and the sources are combined before distribution, then the system shall be sampled at an entry point to the distribution system during periods of normal operating conditions when water that is representative of all sources is being used.
(6) Suppliers of each community and nontransient, noncommunity water system shall take 4 consecutive quarterly samples for each contaminant, except for vinyl chloride, in R 325.10604b during each compliance period, beginning in the initial compliance period. Suppliers that use grandfathered samples and that did not detect any VOCs in R 325.10604b, shall, beginning with the initial compliance period, monitor annually under subrule (7) of this rule.
(7) If a supplier does not detect a contaminant in R 325.10604b in the first of the 4 consecutive quarterly samples, then the supplier shall take 1 sample annually beginning with the initial compliance period.
(8) After a supplier has performed annual sampling for not less than 3 years, the department may allow a groundwater supplier that has not previously detected any contaminant in R 325.10604b to reduce monitoring to 1 sample during each compliance period.
(9) Suppliers of each community and nontransient noncommunity groundwater system that do not detect, at or above 0.0005 milligrams per liter, a contaminant in R 325.10604b may apply to the department for a waiver from portions of the requirements of subrules (6) and (7) of this rule after completing the initial monitoring. A waiver shall be effective for not more than 6 years. The department may also issue waivers to small systems for the initial round of 1,2,4 trichlorobenzene monitoring.
(10) The following factors shall be evaluated to determine if a waiver may be granted:
(a) Knowledge of previous use, including transport, storage, or disposal, of the contaminant within the watershed or zone of influence of the system. If a determination by the department reveals no previous use of the contaminant within the watershed or zone of influence, then a waiver may be granted.
(b) If previous use of the contaminant is unknown or the contaminant has been used previously, then all of the following factors shall be used to determine whether a waiver is granted:
(i) Previous analytical results.
(ii) The proximity of the system to a potential point or non-point source of contamination. Point sources include spills and leaks of chemicals at or near a water treatment facility or at manufacturing, distribution, or storage facilities or from hazardous and municipal waste landfills and other waste-handling or treatment facilities.
(iii) The environmental persistence and transport of the contaminants.
(iv) The number of persons who are served by the public water system and the proximity of a smaller system to a larger system.
(v) How well the water source is protected against contamination, such as whether it is a surface water or groundwater system. Groundwater supplies shall consider factors such as depth of the well, the type of soil, and wellhead protection. Surface water supplies shall consider watershed protection.
(11) As a condition of a waiver, a groundwater supplier shall take 1 sample at each sampling point during the time the waiver is effective and update its vulnerability assessment considering the factors listed in subrule (10) of this rule. If the department does not reconfirm that the system is nonvulnerable based on this vulnerability assessment within 3 years of the initial determination, then the waiver is invalidated and the supplier is required to sample annually as specified in subrule (7) of this rule.
(12) Suppliers of each community and nontransient noncommunity surface water system that do not detect a contaminant in R 325.10604b may apply to the department for a waiver from the requirements of subrule (7) of this rule after completing the initial monitoring. For a waiver to remain in effect, a supplier of a system that does not detect a contaminant in R 325.10604b shall be determined by the department to be nonvulnerable

based on a vulnerability assessment, considering the factors listed in subrule (10) of this rule, during each compliance period. Each supplier that receives a waiver shall sample at the frequency specified by the department.

(13) If a contaminant in R 325.10604b is detected in any sample, then all of the following provisions apply:

(a) The supplier shall monitor quarterly at each sampling point that resulted in a detection.

(b) The department may decrease the quarterly monitoring requirement specified in subdivision (a) of this subrule if it has determined that the system is reliably and consistently below the MCL. A groundwater supplier shall take not fewer than 2 quarterly samples and a surface water supplier shall take not fewer than 4 quarterly samples for this determination.

(c) If the department determines that the system is reliably and consistently below the MCL, then the department may allow the supplier to monitor annually. Suppliers that monitor annually shall monitor during the quarter or quarters that previously yielded the highest analytical result.

(d) Suppliers that conduct 3 consecutive annual samples and do not detect a contaminant may apply to the department for a waiver as specified in subrule (9) of this rule.

(e) Groundwater suppliers that detect 1 or more of the following 2-carbon organic compounds shall monitor quarterly for vinyl chloride:

(i) Trichloroethylene.

(ii) Tetrachloroethylene.

(iii) 1,2-dichloroethane.

(iv) 1,1,1-trichloroethane.

(v) cis-1,2-dichloroethylene.

(vi) trans-1,2-dichloroethylene.

(vii) 1,1-dichloroethylene.

A vinyl chloride sample shall be taken at each sampling point at which 1 or more of the 2-carbon organic compounds were detected. If the results of the first analysis do not detect vinyl chloride, then the department may reduce the quarterly monitoring frequency of vinyl chloride monitoring to 1 sample during each compliance period. Surface water suppliers shall monitor for vinyl chloride as specified by the department.

(14) Suppliers that violate the requirements of R 325.10604b shall monitor quarterly. If not fewer than 4 consecutive quarterly samples show that the system is in compliance with R 325.10604b and the department determines the system is reliably and consistently below the MCL, then the supplier may monitor at the frequency and time specified in subrule (13)(c) of this rule.

(15) The department may require a confirmation sample for positive or negative results. If a confirmation sample is required by the department, then the result shall be averaged with the first sampling result and the average shall be used for the compliance determination as specified by R 325.10604b. The department may delete results of obvious sampling errors from the calculation.

(16) The department may reduce the total number of samples a supplier shall analyze by allowing the use of compositing when the population served by the system is more than 3,300 persons. Composite samples from not more than 5 sampling points within a single water system are allowed if the detection limit of the method used for analysis is less than 1/5 of the MCL. Compositing of samples shall be done in the laboratory and analyzed within 14 days of sample collection. All of the following provisions apply to compositing:

(a) If the concentration in the composite sample is more than or equal to 0.0005 milligrams per liter for any contaminant in R 325.10604b, then the supplier shall take a follow-up sample within 14 days from each sampling point included in the composite and shall analyze the sample.

(b) If duplicates of the original sample taken from each sampling point used in the composite are available, then the supplier may use these duplicates instead of resampling. The supplier shall analyze the duplicate and shall report the results to the department within 14 days after completing analysis of the composite sample, provided the holding time of the sample is not exceeded.

(c) The method for compositing samples specified in the provisions of 40 C.F.R. part 141, paragraph 141.24(f)(14)(iv) and (v), May 4, 2000, is adopted by reference. The adopted material is available from the superintendent of documents at the address in R 325.10116(b) for a cost of $61.00 at the time of adoption of these rules. The adopted material is available for inspection, or copies are available at no cost from the offices of the department at the address in R 325.10116(a).

(17) All new supplies or supplies that use a new source of water shall demonstrate compliance with the MCLs before serving water to the public. The supply shall also comply with the initial sampling frequencies specified by the department to ensure a supply can demonstrate compliance with the MCLs.

History: 1954 ACS 94, Eff. Jan. 12, 1978; 1979 AC; 1993 MR 6, Eff. July 2, 1993; 1994 MR 12, Eff. Jan. 5,

1995; 1998 MR 3, Eff. Apr. 8, 1998; 2002 MR 10, Eff. May 30, 2002; 2005 MR 6, Eff. Apr. 6, 2005.

R 325.10717 Collection and analysis of samples for synthetic organic chemicals.

Rule 717. (1) Suppliers of community and nontransient, noncommunity water supplies shall collect samples and cause analyses to be made under this rule for synthetic organic chemicals to determine compliance with the state drinking water standards in R 325.10604d. Each supplier shall monitor at the time designated by the department within each compliance period.

(2) A groundwater supplier shall take at least 1 sample at every entry point to the distribution system that is representative of each well after treatment, also known as sampling point. Each sample shall be taken at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant.

(3) A surface water supplier, or combined surface water and ground water, shall take at least 1 sample at points in the distribution system that are representative of each source or at each entry point to the distribution system after treatment, also known as sampling point. Each sample shall be taken at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant.

(4) If a system draws water from more than 1 source and the sources are combined before distribution, then the supplier shall sample at an entry point to the distribution system during periods of normal operating conditions when water that is representative of all sources is being used.

(5) Each community and nontransient, noncommunity water supplier shall take 4 consecutive quarterly samples for each contaminant in R 325.10604d during each compliance period beginning with the initial compliance period.

(6) A supplier serving more than 3,300 people that does not detect a contaminant in the initial compliance period may reduce the sampling frequency to not fewer than 2 quarterly samples in 1 year during each repeat compliance period.

(7) A supplier serving fewer than 3,301 people that does not detect a contaminant in the initial compliance period may reduce the sampling frequency to at least 1 sample during each repeat compliance period.

(8) Each community and nontransient water supply may apply to the department for a waiver from the requirements of subrule (5), (6), or (7) of this rule. A supplier shall reapply for a waiver for each compliance period.

(9) The department may grant a waiver if a determination by the department does not reveal previous use, including transport, storage, or disposal, of the contaminant within the watershed or zone of influence. If previous use of the contaminant is unknown or if the contaminant has been used previously, then all of the following factors shall be used to determine whether a waiver is granted:

(a) Previous analytical results.

(b) The proximity of the system to a potential point or non-point source of contamination. Point sources include spills and leaks of chemicals at or near a water treatment facility, at manufacturing, distribution, or storage facilities or from hazardous and municipal waste-handling or treatment facilities. Non-point sources include the use of pesticides to control insect and weed pests in agricultural areas, forest lands, homes, and gardens and also include other land application uses.

(c) The environmental persistence and transport of the pesticide or PCBs.

(d) How well the water source is protected against contamination due to factors such as depth of the well, the type of soil, and the integrity of the well casing.

(e) Elevated nitrate levels at the water supply source.

(f) Use of PCBs in equipment that is used in the production, storage, or distribution of water.

(10) If a contaminant in R 325.10604d is detected in any sample, then all of the following provisions apply:

(a) Each supply shall monitor quarterly at each sampling point that resulted in a detection. The department may decrease the quarterly monitoring requirement specified in this subrule if it has determined that the supply is reliably and consistently below the MCL. A groundwater supplier shall take not fewer than 2 quarterly samples and a surface water supplier shall take not fewer than 4 quarterly samples before this determination.

(b) After the department determines that the supply is reliably and consistently below the MCL, the department may allow the supply to monitor annually. Supplies that monitor annually shall monitor during the quarter that previously yielded the highest analytical result.

(c) A supplier that conducts 3 consecutive annual samples and does not detect a contaminant may apply to the department for a waiver as specified in subrule (9) of this rule.

(d) If monitoring results in detection of 1 or more of the following contaminants, then subsequent monitoring shall analyze for all the following related contaminants:

(i) Aldicarb.
(ii) Aldicarb sulfone.
(iii) Aldicarb sulfoxide.
(iv) Heptachlor.
(v) Heptachlor epoxide.
(11) A supplier that violates R 325.10604d shall monitor quarterly. If not fewer than 4 quarterly samples show that the supply is in compliance and the department determines the supply is reliably and consistently below the MCL, then the supplier shall monitor at the frequency specified in subrule (10)(b) of this rule.
(12) The department may require a confirmation sample for positive or negative results. If a confirmation sample is required, then the result shall be averaged with the first sampling result and the average shall be used for the compliance determination. The department may delete results of obvious sampling errors from this calculation.
(13) The department may reduce the total number of samples a supplier is required to analyze by allowing the use of compositing. Composite samples from not more than 5 sampling points within the same system are allowed if the detection limit of the method used for the analysis is less than 1/5 of the MCL. Compositing of samples shall be done in the laboratory and shall be analyzed within 14 days of sample collection. Both of the following provisions apply to compositing:
(a) If the concentration in the composite sample detects 1 or more contaminants in R 325.10604d, then the supplier shall take a follow-up sample within 14 days from each sampling point included in the composite and shall analyze the sample for that contaminant.
(b) If duplicates of the original sample taken from each sampling point used in the composite are available, then the supplier may use these duplicates instead of resampling. Duplicates shall be analyzed and the results reported to the department within 14 days after completion of the composite analysis or before the holding time is exceeded, whichever is sooner.
(14) If monitoring data that are collected after January 1, 1990, are generally consistent with the requirements of this rule, R 325.10604d, and R 325.10605, then the department may allow systems to use that data to satisfy the monitoring requirement for the initial compliance period.
(15) To detect variations within a system, due to fluctuations in concentration due to seasonal use or changes in water source, the department may increase the required monitoring frequency.
(16) A determination of compliance may be based upon analytical results and other information compiled by the department.
(17) All new supplies or supplies that use a new source of water shall demonstrate compliance with the MCLs before serving water to the public. The supply shall also comply with the initial sampling frequencies specified by the department to ensure a supply can demonstrate compliance with the MCLs.
History: 1954 ACS 94, Eff. Jan. 12, 1978; 1979 AC; 1984 MR 6, Eff. July 6, 1984; 1989 MR 8, Eff. Sept. 13, 1989; 1993 MR 6, Eff. July 2, 1993; 1994 MR 12, Eff. Jan. 5, 1995; 1998 MR 3, Eff. Apr. 8, 1998; 2000 MR 19, Eff. Dec.8, 2000; 2005 MR 6, Eff. Apr. 6, 2005.

R 325.10717a
Source: 1997 AACS.

R 325.10717b Special monitoring.
Rule 717b. (1) Unregulated contaminant monitoring requirements are contained in 40 CFR §141.40. The department adopts by reference 40 CFR §141.40 (October 29, 2002). The adopted material is available from the superintendent of documents at the address in R 325.10116(b) for a cost of $61.00 at the time of adoption of these rules. The adopted material is available for inspection, or copies are available at no cost from the offices of the department at the address in R 325.10116(a).
(2) All of the following provisions apply to sodium monitoring:
(a) A supplier of water for a community water system shall collect and analyze 1 sample per plant at the entry point to the distribution system to determine sodium concentration levels. Samples shall be collected and analyzed annually for a system that utilizes surface water sources in whole or in part and not less than once every 3 years for a system that utilizes solely ground water sources. The minimum number of samples required to be taken by the system shall be based on the number of treatment plants used by the system, except that multiple wells drawing raw water from a single aquifer may be considered 1 treatment plant for determining the minimum number of samples.
(b) The supplier of water shall report to the department the results of the analyses for sodium as required in

R 325.10734(1). If the department requires more than annual sampling, then the supplier shall report the average sodium concentration as required in R 325.10734(1) after taking the last sample used for the annual average.
(c) The supplier shall notify the local health department of the sodium levels within 3 months in writing. The supplier shall send a copy of the written notice to the state within 10 days of its issuance. The supplier is not required to send written notice to the local health department when the department provides the notice instead of the supplier.
(3) An analysis for a contaminant or parameter listed in this rule shall be conducted only by laboratories certified to conduct that analysis under part 27 of these rules or approved by the United States EPA.
History: 1989 MR 8, Eff. Sept. 13, 1989; 1991 MR 11, Eff. Nov. 22, 1991; 1993 MR 6, Eff. July 2, 1993; 1994 MR 12, Eff. Jan. 5, 1995; 1998 MR 3, Eff. Apr. 8, 1998; 2002 MR 10, Eff. May 30, 2002; 2005 MR 6, Eff. Apr. 6, 2005.

R 325.10717c
Source: 1993 AACS.

R 325.10718
Source: 1997 AACS.

R 325.10719
Source: 2003 AACS.

R 325.10719a Rescinded.
History: 1984 MR 6, Eff. July 6, 1984; 2003 MR 2, Eff. Jan. 29, 2003; rescinded 2005 MR 6, Eff. Apr. 6, 2005.

R 325.10719b Rescinded.
History: 1984 MR 6, Eff. July 6, 1984; rescinded 2005 MR 6, Eff. Apr. 6, 2005.

R 325.10719c Rescinded.
History: 1984 MR 6, Eff. July 6, 1984; rescinded 2005 MR 6, Eff. Apr. 6, 2005.

R 325.10719d Rescinded.
History: 1984 MR 6, Eff. July 6, 1984; 2003 MR 2, Eff. Jan. 29, 2003; Rescinded 2005 MR 6, Eff. Apr. 6, 2005.

R 325.10719e
Source: 2003 AACS.

R 325.10719f
Source: 2003 AACS.

R 325.10720 Filtration and disinfection; filtration sampling requirements
Rule 720. (1) Suppliers of subpart H systems shall monitor under this rule to determine compliance with R 325.10611a and R 325.10611b.
(2) All of the following provisions are turbidity monitoring requirements:
(a) Suppliers shall collect samples and perform measurements for turbidity at locations representative of filtered water at regular intervals at least once every 4 hours while the treatment plant is in operation.
(b) A public water supplier may substitute continuous turbidity monitoring for grab sample monitoring if the continuous measurement is validated for accuracy on a regular basis using a protocol approved by the department. Readings taken from a continuous recording turbidimeter at regular intervals at least once every 4 hours may be used to determine compliance with the treatment technique under R 325.10611b. The turbidimeter shall be calibrated using the procedure specified by the manufacturer.
(c) Suppliers of systems using conventional or direct filtration shall conduct continuous monitoring of turbidity for each individual filter and shall calibrate turbidimeters using the procedure specified by the manufacturer. Suppliers shall record the results of individual filter monitoring every 15 minutes. Until December 31, 2004, this subdivision applies only to systems serving 10,000 or more people. Beginning January 1, 2005, this subdivision also applies to systems serving fewer than 10,000 people.

(d) If there is a failure in the continuous turbidity monitoring equipment described in subdivision (b) of this subrule, then the supplier shall conduct grab sampling every 4 hours instead of continuous monitoring, but for not more than 5 working days after the failure of the equipment for systems serving 10,000 or more people or 14 days for systems serving fewer than 10,000 people before a violation is incurred.
(e) If the system serves fewer than 10,000 people and consists of only 2 or fewer filters, then the supplier may conduct continuous monitoring of combined filter effluent turbidity instead of individual filter effluent turbidity monitoring. Continuous monitoring shall meet the same requirements in subdivisions (c) and (d) of this subrule.
(3) All of the following provisions are disinfectant residual monitoring requirements at the entry points to the distribution system:
(a) Suppliers of systems serving more than 3,300 people shall monitor for residual disinfectant concentration at an entry point to the distribution system on a continuous basis.
(b) Suppliers of systems serving fewer than 3,301 people shall monitor for residual disinfectant concentration at an entry point to the distribution system at a frequency set forth in table 1 of this rule, and, if more than 1 sample is required per day, suppliers shall collect samples at times evenly spaced throughout the operational day.

Table 1 Residual disinfectant concentration sampling frequencies

System size by population	Samples per day
500 or fewer people	1
501 to 1,000 people	2
1,001 to 2,500 people	3
2,501 to 3,300 people	4

(c) Suppliers shall maintain a residual disinfectant concentration entering the distribution system of not less than 0.2 milligrams per liter. If the residual disinfectant concentration drops below this level at any time, then the supplier shall notify the department as soon as possible, but not later than the end of the next business day. In addition, the supplier of water shall notify the department by the end of the next business day whether or not the residual disinfectant concentration was restored to not less than 0.2 milligrams per liter within 4 hours.
History: 1954 ACS 94, Eff. Jan. 12, 1978; 1979 AC; 1991 MR 11, Eff.Nov. 22, 1991; 1993 MR 6, Eff. July 2, 1993; 2003 MR 2, eff. Jan. 29, 2003;2005 MR 6, Eff. Apr. 6, 2005.

R 325.10720a Filtration and disinfection; reporting and recordkeeping.
Rule 720a. (1) Suppliers required to monitor under R 325.10720 shall comply with reporting and recordkeeping requirements specified in R 325.11502 and shall report to the department the information required in this rule within 10 days after the end of each month the system serves water to the public, unless otherwise required.
(2) Suppliers shall report turbidity measurements required under R 325.10611b and shall include all of the following information:
(a) The total number of filtered water turbidity measurements taken during the month.
(b) The number and percentage of filtered water turbidity measurements taken during the month that are less than or equal to the turbidity limits under R 325.10611b(1)(a)(ii), (b)(ii), or (c)(ii).
(c) The date and value of any turbidity measurements taken during the month that exceed the applicable maximum turbidity value in R 325.10611b(1)(a)(i), (b)(i), or (c)(i).
(3) Suppliers shall report that they have conducted individual filter turbidity monitoring under R 325.10720(2)(c) and (d). Suppliers shall report individual turbidity measurements only if measurements demonstrate 1 or more of the conditions in subdivisions (a) to (d) of this subrule. A Supply that uses lime softening may apply to the department for alternative turbidity exceedance levels for the levels specified in subdivisions (a) to (d) of this subrule if it can demonstrate that higher turbidity levels in individual filters are due to lime carryover only and not due to degraded filter performance. Individual filter monitoring reporting requirements are as follows:
(a) For any individual filter, or combined filter effluent for systems that monitor combined filter effluent instead of individual filters, that has a measured turbidity level of more than 1.0 ntu in 2 consecutive measurements taken 15 minutes apart, the supplier shall report the filter number, the turbidity measurement, and the date or dates on which the exceedance occurred. In addition, the supplier shall report the cause for the exceedance, if known. A supplier of a system serving 10,000 or more people that cannot identify an obvious reason for the

abnormal filter performance shall produce a filter profile within 7 days of the exceedance and report that the profile has been produced.

(b) For any individual filter that has a measured turbidity level of more than 0.5 ntu in 2 consecutive measurements taken 15 minutes apart at the end of the first 4 hours of continuous filter operation after the filter has been backwashed or otherwise taken offline, the supplier of a system serving 10,000 or more people shall report the filter number, the turbidity measurement, and the date or dates on which the exceedance occurred. In addition, the supplier shall either produce a filter profile for the filter within 7 days of the exceedance and report that the profile has been produced, or report the obvious reason for the exceedance.

(c) For any individual filter, or combined filter effluent for systems that monitor combined filter effluent instead of individual filters, that has a measured turbidity level of more than 1.0 ntu in 2 consecutive measurements taken 15 minutes apart at any time in each of 3 consecutive months, the supplier shall report the filter number, the turbidity measurement, and the date or dates on which the exceedance occurred. In addition, the supplier shall conduct a self assessment of the filter , unless a comprehensive performance evaluation as specified in subdivision (d) of this subrule was required. If a self assessment is required, then the supplier of a system serving 10,000 or more people shall complete it within 14 days after it was triggered and the supplier of a system serving fewer than 10,000 people shall complete it by the 10th of the following month, or within 14 days if it was triggered during the last 4 days of the month. A supplier that monitors combined filter effluent instead of individual filters under R 325.10720(2)(e), shall conduct a self assessment on both filters. The supplier shall report the date the self assessment was completed. The self assessment shall consist of at least all of the following components:

(i) Assessment of filter performance.

(ii) Development of a filter profile.

(iii) Identification and prioritization of factors limiting filter performance.

(iv) Assessment of the applicability of corrections.

(v) Preparation of a filter self assessment report.

(d) For any individual filter, or combined filter effluent for systems that monitor combined filter effluent instead of individual filters, that has a measured turbidity level of more than 2.0 ntu in 2 consecutive measurements taken 15 minutes apart at any time in each of 2 consecutive months, the supplier shall report the filter number, the turbidity measurement, and the date or dates on which the exceedance occurred. In addition, the supplier shall arrange for the conduct of a comprehensive performance evaluation by the department or a third party approved by the department. Either of the following provisions apply:

(i) For a system serving 10,000 or more people, the comprehensive performance evaluation shall be arranged to be conducted not later than 30 days after the day the filter exceeded 2.0 ntu in 2 consecutive measurements for the second straight month. The evaluation shall be completed and submitted to the department not later than 90 days after the day it was triggered.

(ii) For a system serving fewer than 10,000 people, a new comprehensive performance evaluation is not required if 1 has been completed by the department, or a third party approved by the department, within the 12 previous months or if the system and the department are jointly participating in an ongoing comprehensive technical assistance project at the system. Suppliers shall report that a comprehensive performance evaluation is required, if it is required, and the date the filter exceeded 2.0 ntu in 2 consecutive measurements for the second straight month. The comprehensive performance evaluation shall be arranged to be conducted not later than 60 days after the day the filter exceeded 2.0 ntu in 2 consecutive measurements for the second straight month. The evaluation shall be completed and submitted to the department not later than 120 days after the day it was triggered.

(4) The supplier shall consult with the department as soon as practical, but not later than 24 hours after the exceedance is known, if the turbidity level of representative samples of filtered water at any time exceeds the levels in R 325.10611b(1)(a)(i), (b)(i), or (c)(i).

(5) A supplier that is required to conduct disinfection profiling and benchmarking shall report both of the following:

(a) Results of optional monitoring performed that show TTHM and HAA5 levels below 0.064 mg/l and 0.048 mg/l, respectively.

(b) If a supplier is considering a significant change to its disinfection practice, then the supplier shall report a description of the proposed change in disinfection, the system's disinfection profile for *Giardia lamblia*, and, if necessary, viruses, and disinfection benchmark, and an analysis of how the proposed change will affect the current levels of disinfection.

History: 2003 MR 2, Eff. Jan. 29, 2003; 2005 MR 6, Eff. Apr. 6, 2005.

R 325.10721
Source: 2003 AACS.

R 325.10722 Filtration and disinfection; disinfection profiling and benchmarking.
Rule 722. (1) A subpart H system making a significant change to its disinfection practice, as described in subrule (4)(a)(i) to (iv) of this rule shall consult with the department before making the change.
(2) A subpart H community or nontransient noncommunity system serving fewer than 10,000 people shall develop a disinfection profile of weekly log inactivations over 52 weeks and report to the department under R 325.10720a(5). A system whose TTHM and HAA5 levels are below profiling trigger levels of 0.064 mg/l and 0.048 mg/l, respectively, are not required to develop a disinfection profile. To determine these levels, TTHM and HAA5 samples shall be collected after January 1, 1998, during the month with the warmest water temperature, and at a point of maximum resident time in the distribution system.
(3) All of the following provisions apply to disinfection profiling:
(a) To determine the total log inactivation, systems shall monitor during peak hourly flow, once per week on the same calendar day, over 12 consecutive months, all of the following parameters:
(i) Temperature of the disinfected water at each residual disinfected concentration sampling point.
(ii) If chlorine is used, the pH of the disinfected water at each residual disinfected concentration sampling point.
(iii) Disinfectant contact time or times ("T").
(iv) Residual disinfectant concentration or concentrations ("C") of the water before or at the first customer and before each additional point of disinfection.
(b) Use the tables in 40 CFR 141.74(b)(3)(v) to determine the appropriate CT99.9 value. The tables in 40 CFR 141.74(b)(3)(v) are adopted by reference and available from the superintendent of documents at the address in R 325.10116(b) for a cost of $61.00 at the time of adoption of these rules. The adopted material is available for inspection, or copies are available at no cost from the offices of the department at the address in R 325.10116(a). Calculate the total inactivation ratio as follows, and then multiply the value by 3.0 to determine log activation of *Giardia lamblia*:
(i) If the system uses only 1 point of disinfectant application, then the system shall determine either of the following:
(A) One inactivation ratio ($CTcalc/CT_{99.9}$) before or at the first customer during peak hourly flow.
(B) Successive $CTcalc/CT_{99.9}$ values, representing sequential inactivation ratios, between the point of disinfectant application and a point before or at the first customer during peak hourly flow. Under this alternative, the system shall calculate the total inactivation ratio by determining ($CTcalc/CT_{99.9}$) for each sequence and then adding the ($CTcalc/CT_{99.9}$) values together to determine $\sum(CTcalc/CT_{99.9})$.
(ii) If the system uses more than 1 point of disinfectant application before the first customer, then the system shall determine the ($CTcalc/CT_{99.9}$) value of each disinfection segment immediately before the next point of disinfectant application, or for the final segment, before or at the first customer, during peak hourly flow using the procedure specified in paragraph (i)(B) of this subdivision.
(c) If the system uses chloramines, ozone, or chlorine dioxide for primary disinfection, then the system shall calculate the logs of inactivation for viruses and develop an additional disinfection profile for viruses. Use the tables of CT values for 4-log inactivation of viruses in Appendix B of the LT1ESWTR Disinfection Profiling and Benchmarking Technical Guidance Manual, May 2003, to determine the appropriate CT99.99 value. The tables in the previous sentence are adopted by reference and available from Educational REALMS (document C-900) at 1929 Kenny Road, Columbus, Ohio 43210-1080, Internet address www.stemworks.org, telephone number 800-276-0462, for a cost of $32.50 at the time of adoption of these rules. The adopted material is available for inspection, or copies are available at no cost from the offices of the department at the address in R 325.10116(a). Calculate the total inactivation ratio in the following manner, and then multiply the value by 4.0 to determine log activation of viruses:
(i) If the system uses only 1 point of disinfectant application, then the system shall determine either of the following:
(A) One inactivation ratio ($CTcalc/CT_{99.99}$) before or at the first customer during peak hourly flow.
(B) Successive $CTcalc/CT_{99.99}$ values, representing sequential inactivation ratios, between the point of disinfectant application and a point before or at the first customer during peak hourly flow. Under this alternative, the system shall calculate the total inactivation ratio by determining ($CTcalc/CT_{99.99}$) for each sequence and then adding the ($CTcalc/CT_{99.99}$) values together to determine $\sum(CTcalc/CT_{99.99})$.
(ii) If the system uses more than 1 point of disinfectant application before the first customer, then the system

shall determine the ($CTcalc/CT_{99.99}$) value of each disinfection segment immediately before the next point of disinfectant application, or for the final segment, before or at the first customer, during peak hourly flow using the procedure specified in paragraph (i)(B) of this subdivision.
(d) The disinfection profile of the 52 measurements of log inactivations shall be represented in a graphic form, such as a spreadsheet and shall be retained and be available for review by the department as part of a sanitary survey. The data shall be used to create the disinfection benchmark under subrule (4) of this rule.
(4) A subpart H system that is required to develop a disinfection profile under subrule (2) of this rule shall develop a disinfection benchmark if the system makes a significant change to the disinfection practice. The system shall consult with the department for approval before implementing a significant disinfection practice change. An approved significant change in disinfection practices shall not jeopardize current levels of disinfection. All of the following provisions apply to disinfection benchmarking:
(a) Significant changes to disinfection practice include all of the following:
(i) Changes to the point of disinfection.
(ii) Changes to the disinfectant or disinfectants used in the treatment plant.
(iii) Changes to the disinfection process.
(iv) Any other modification identified by the department that affects disinfection practices.
(b) If the system is considering a significant change to its disinfection practice, it shall calculate a disinfection benchmark or benchmarks as described in subdivisions (c) and (d) of this subrule and provide the benchmark or benchmarks to the department. The system may only make a significant disinfection practice change after consulting with the department for approval. The system shall submit all of the following information to the department as part of the consultation and approval process:
(i) A description of the proposed change.
(ii) The disinfection profile for *Giardia lamblia*, and, if necessary, viruses, and disinfection benchmark.
(iii) An analysis of how the proposed change will affect the current levels of disinfection.
(iv) Any additional information requested by the department to demonstrate the results or benefits, or both, of the change to the disinfection practice.
(c) If the system is making a significant change to its disinfection practice, then it shall calculate a disinfection benchmark using the following procedure:
(i) Step 1: Using the data collected to develop the disinfection profile under subrule (2) of this rule, the system shall determine the average *Giardia lamblia* inactivation for each calendar month by dividing the sum of all *Giardia lamblia* inactivations for that month by the number of values calculated for that month.
(ii) Step 2: The system shall determine the lowest monthly average value out of the 12 values. This value becomes the disinfection benchmark.
(d) If the system uses chloramines, ozone or chlorine dioxide for primary disinfection, then it shall calculate the disinfection benchmark from the data collected for viruses to develop the disinfection profile under subrule (2) of this rule in addition to the *Giardia lamblia* disinfection benchmark calculated under subdivision (c) of this subrule. This viral benchmark shall be calculated in the same manner used to calculate the *Giardia lamblia* disinfection benchmark in subdivision (c) of this subrule.
History: 1954 ACS 94, Eff. Jan. 12, 1978; 1979 AC; 2005 MR 6, Eff. Arp. 6, 2005.

R 325.10724
Source: 1997 AACS.

R 325.10725 Radionuclides; applicability; monitoring generally; reporting.
Rule 725. (1) A community water supply, also known as "supply" in this rule, R 325.10726, R 325.10728, R 325.10729, and R 325.10730, shall monitor to determine compliance with R 325.10603 and report to the department under these rules.
(2) For the purposes of monitoring for gross alpha particle activity, radium-226, radium-228, uranium, and beta particle and photon radioactivity in drinking water, "detection limit" is defined in Title 40 CFR §141.25(c), which is adopted by reference in R 325.10605.
(3) The department may require more frequent monitoring than specified in this rule, or may require confirmation samples, when the department considers it appropriate for the protection of public health or there is a need for additional sampling based on prior sampling results.
(4) Each public water supply shall monitor at a time designated by the department during each compliance period.
(5) If the MCL for radioactivity in R 325.10603 is exceeded, then the community water supply shall notify the

department under R 325.10734.
History: 1954 ACS 94, Eff. Jan. 12, 1978; 1979 AC; 20

R 325.10726 Radionuclides; initial monitoring for gross alpha particle activity, radium-226, radium-228, and uranium.
Rule 726. (1) A community water supply shall conduct initial monitoring for gross alpha particle activity, radium-226, radium-228, and uranium to determine compliance with R 325.10603(2)(a), (b), and(d).
(2) An existing supply shall sample at every entry point to the distribution system that is representative of all sources of water being used, known as "sampling point," under normal operating conditions. The supply shall take each sample at the same sampling point unless conditions make another sampling point more representative of each source.
(3) A new community water supply or a community water supply that uses a new source of water shall begin to conduct initial monitoring for the new source within the first quarter after initiating use of the source. A community water supply shall conduct more frequent monitoring when ordered by the department if possible contamination or if changes in the distribution system or treatment processes occur which may increase the concentration of radioactivity in finished water.
(4) A supply shall conduct initial monitoring for gross alpha particle activity, radium-226, radium-228, and uranium in the following manner:
(a) A supply shall collect 4 consecutive quarterly samples at all sampling points before December 31, 2007. A supply that has results of samples collected from a sampling point during the compliance period that began between June 1, 2000 and December 8, 2003, may use those results to satisfy the initial monitoring requirements for that sampling point.
(b) For gross alpha particle activity, uranium, radium-226, and radium-228 monitoring, the department may waive the final 2 quarters of initial monitoring for a sampling point if the results of the samples from the previous 2 quarters are below the detection limit.
(c) If the average of the initial monitoring results for a sampling point is above the MCL, then the supply shall collect and analyze quarterly samples at that sampling point until the supply has results from 4 consecutive quarters that are at or below the MCL, unless the supply enters into another schedule as part of a formal compliance agreement with the department.
History: 1954 ACS 94, Eff. Jan. 12, 1978; 1979 AC; 2005 MR 6, Eff. Apr. 6, 2005.
05 MR 6, Eff. Apr. 6, 2005.

R 325.10728 Radionuclides; reduced monitoring for gross alpha particle activity, radium-226, radium-228, and uranium.
Rule 728. (1) The department may allow community water supplies to reduce the future frequency of monitoring from once every 3 years to once every 6 or 9 years at each sampling point, based on the criteria in the following table:

Table 1 Radionuclides reduced monitoring criteria

For gross alpha particle activity, uranium, and combined radium 226 radium-228, if the average of the initial monitoring results for each contaminant at a sampling point is...	*Then the supply shall collect and analyze for that contaminant using at least one sample at that sampling point every ...*
(a) Below the detection limit[1]	9 years
(b) At or above the detection limit, but at or below half the MCL[2]	6 years
(c) Above half the MCL, but at or below the MCL[2]	3 years
[1] For combined radium-226 and 228, both contaminants shall be below the detection limit. [2] For combined radium-226 and radium-228, the analytical results for radium-226 and 228 shall be combined.	

(2) A supply shall use the samples collected during the reduced monitoring period to determine the monitoring frequency for subsequent monitoring periods. For example, if a supply's sampling point is on a 9-year monitoring period, and the sample result is above half the MCL, then the next monitoring period for that sampling point is 3 years.
(3) If a supply has a monitoring result that exceeds the MCL while on reduced monitoring, then the supply shall collect and analyze quarterly samples at that sampling point until the supply has results from 4 consecutive

quarters that are at or below the MCL, unless the supply enters into another schedule as part of a formal compliance agreement with the department.
History: 1954 ACS 94, Eff. Jan. 12, 1978; 1979 AC; 1989 MR 8, Eff. Sept. 13, 1989; 2005 MR 6, Eff. Apr. 6, 2005.

R 325.10729 Radionuclides; compositing; substituting gross alpha for radium-226 or uranium.
Rule 729. (1) To fulfill quarterly monitoring requirements for gross alpha particle activity, radium-226, radium-228, or uranium, a supply may composite up to 4 consecutive quarterly samples from a single entry point if analysis is done within 1 year of the first sample. The department considers analytical results from the composited sample as the average analytical result to determine compliance with the MCLs and the future monitoring frequency. If the analytical result from the composited sample is more than half the MCL, then the department may direct the supply to take additional quarterly samples before allowing the supply to sample under a reduced monitoring schedule.
(2) A gross alpha particle activity measurement may be substituted for the required radium-226 measurement if the measured gross alpha particle activity does not exceed 5 pCi/l. A gross alpha particle activity measurement may be substituted for the required uranium measurement if the measured gross alpha particle activity does not exceed 15 pCi/l. The gross alpha measurement shall have a confidence interval of 95% (1.65σ, where σ is the standard deviation of the net counting rate of the sample) for radium-226 and uranium. If a supply uses a gross alpha particle activity measurement instead of a radium-226 or uranium measurement, or both, then the gross alpha particle activity analytical result shall be used to determine the future monitoring frequency for radium-226 or uranium, or both. If the gross alpha particle activity result is less than detection, then half the detection limit shall be used to determine compliance and the future monitoring frequency.
History: 1954 ACS 94, Eff. Jan. 12, 1978; 1979 AC; 2005 MR 6, Eff. Apr. 6, 2005.

R 325.10730 Radionuclides; monitoring requirements for beta particle and photon radioactivity; applicability.
Rule 730. (1) To determine compliance with the maximum contaminant levels in R 325.10603(2)(c) for beta particle and photon radioactivity, a community water supply designated by the department as either vulnerable or utilizing water contaminated by effluents from nuclear facilities, shall sample for beta particle and photon radioactivity. The department's designation shall be based on monitoring data, environmental surveillance data collected in the vicinity of nuclear facilities, or source water assessments.
(2) Beginning within 1 quarter after being notified of the department's designation and continuing until the department reviews and either reaffirms or removes the designation, a supply shall collect samples at each entry point to the distribution system, known as sampling point, under both of the following provisions:
(a) For a vulnerable supply, quarterly samples for beta emitters and annual samples for tritium and strontium-90.
(b) For a supply utilizing waters contaminated by effluents from nuclear facilities, quarterly samples for beta emitters and iodine-131 and annual samples for tritium and strontium-90. A supply shall monitor and analyze the samples under all of the following provisions:
(i) Quarterly monitoring for gross beta particle activity shall be based on the analysis of monthly samples or the analysis of a composite of 3 monthly samples.
(ii) For iodine-131, a composite of 5 consecutive daily samples shall be analyzed once each quarter. As ordered by the department, more frequent monitoring shall be conducted when iodine-131 is identified in the finished water.
(iii) Annual monitoring for strontium-90 and tritium shall be conducted by means of the analysis of a composite of 4 consecutive quarterly samples or analysis of 4 quarterly samples.
(3) All of the following provisions apply for gross beta particle activity:
(a) A supply may analyze for naturally occurring potassium-40 beta particle activity from the same or equivalent sample used for the gross beta particle activity analysis. A supply may subtract the potassium-40 beta particle activity value from the total gross beta particle activity value to determine if the screening level in subdivision (b) of this subrule is exceeded. The potassium-40 beta particle activity shall be calculated by multiplying elemental potassium concentrations (in mg/L) by a factor of 0.82.
(b) If the gross beta particle activity minus the naturally occurring potassium-40 beta particle activity at a sampling point has a running annual average, computed quarterly, less than or equal to a screening level of 50 pCi/L for a vulnerable supply or 15 pCi/L for a supply utilizing waters contaminated by effluents from nuclear facilities, then the department may reduce the frequency of monitoring at that sampling point to once every

3 years. During the reduced monitoring period, a supply shall collect all samples required in subrule (2)(a) of this rule for a vulnerable supply or subrule (2)(b) of this rule for a supply utilizing water contaminated by effluents from nuclear facilities.
(c) If the gross beta particle activity minus the naturally occurring potassium-40 beta particle activity exceeds the screening level in subdivision (b) of this subrule, then an analysis of the sample shall be performed to identify the major radioactive constituents present in the sample and the appropriate doses shall be calculated and summed to determine compliance with R 325.10603(2)(c)(i), using the formula in R 325.10603(2)(c)(ii). Doses shall also be calculated and combined for measured levels of tritium and strontium to determine compliance.
(4) For a supply in the vicinity of a nuclear facility, the community water supply may utilize environmental surveillance data collected by the nuclear facility instead of monitoring at the supply's entry point or points, where the department determines that the data is applicable to a particular water supply. If there is a release from a nuclear facility, then a supply which uses surveillance data shall begin monitoring at the community water supply's entry point or points under subrule (2)(a) or (b) of this rule.
(5) A community water supply designated by the department to monitor for beta particle and photon radioactivity shall not apply to the department for a waiver from the monitoring frequencies specified in subrule (2)(a) or (b) of this rule.
(6) A supply shall monitor monthly at the sampling point or points that exceed the maximum contaminant level in R 325.10603(2)(c) beginning the month after the exceedance occurs. The supply shall continue monthly monitoring until the supply has established, by the average of results from any 3 consecutive months, that the MCL is being met. A supply that establishes that the MCL is being met shall return to quarterly monitoring until it meets the requirements set forth in subrule (3)(b) of this rule.
History: 1954 ACS 94, Eff. Jan. 12, 1978; 1979 AC; 2005 MR 6, Eff. Apr. 6, 2005.

R 325.10734
Source: 2002 AACS.

R 325.10736
Source: 2002 AACS.

R 325.10737
Source: 1997 AACS.

R 325.10738
Source: 2002 AACS.

PART 8. GROUNDWATER SOURCES

R 325.10822
Source: 1991 AACS.

R 325.10831
Source: 1991 AACS.

R 325.10833
Source: 1997 AACS.

PART 10. TREATMENT SYSTEMS AND PUMPING FACILITIES

R 325.11002
Source: 2003 AACS.

R 325.11004
Source: 2003 AACS.

R 325.11008

Source: 2003 AACS.

R 325.11009
Source: 2003 AACS.

PART 11. DISTRIBUTION SYSTEMS AND STORAGE TANKS

R 325.11110
Source: 1991 AACS.

R 325.11117
Source: 1991 AACS.

PART 14. CROSS-CONNECTIONS

R 325.11404
Source: 1998-2000 AACS.

R 325.11405
Source: 1998-2000 AACS.

R 325.11406
Source: 1998-2000 AACS.

PART 15. OPERATION REPORTS AND RECORDKEEPING

R 325.11502
Source: 2003 AACS.

R 325.11503
Source: 2003 AACS.

R 325.11505a
Source: 2003 AACS.

R 325.11506 Retention of Records
Rule 1506. (1) A supplier of a community or noncommunity water system shall retain, on its premises or at a convenient location near its premises, all of the following records:
(a) Records of bacteriological analyses that are required under part 7 of these rules, which shall be kept for not less than 5 years.
(b) Records of chemical analyses that are required under part 7 of these rules, which shall be kept for not less than 10 years.
(c) Records of turbidity analyses that are required under part 7 of these rules, which shall be kept for not less than 3 years.
(d) Records of radiological analyses that are required under part 7 of these rules, which shall be kept for not less than 10 years.
(e) Original records of all sampling data and analyses, reports, surveys, letters, evaluations, schedules, department determinations, and any other information that is required under R 325.10604f(2) to (4), which shall be retained for not less than 12 years.
(f) Results of the disinfection profile and benchmark, which shall be retained indefinitely.
(2) Actual laboratory reports for chemical, bacteriological, turbidity, disinfection profile and benchmark, and radiological analyses shall be kept; however, the analyses data may be transferred to tabular summaries if all of the following information is included:
(a) The date, place, and time of sampling and the name of the person who collected the sample.
(b) Identification of the sample as a routine distribution system sample, check sample, raw or treated water sample, or other special purpose sample.

(c) The date of the analysis.
(d) The laboratory and the person who was responsible for performing the analysis.
(e) The analytical technique or method used.
(f) The results of the analysis.
(3) Records of action taken by the supplier to correct violations of the state drinking water standards shall be kept for not less than 3 years after the last action taken with respect to the particular violation.
(4) Copies of any written reports, summaries, or communications which relate to sanitary surveys of the public water supply and which were conducted by the public water supply itself, by a private consultant, by the division, or by any local, state, or federal agency shall be kept for not less than 10 years after completion of the sanitary survey involved.
(5) Records that involve a variance or an exemption that was granted to a public water supply shall be kept for not less than 5 years after the expiration date of the variance or exemption.
(6) Records that involve any emergency or public notification regarding a public water supply shall be kept for not less than 3 years after the emergency or public notification.
(7) A subpart H system that employs conventional filtration or direct filtration treatment and that recycles spent filter backwash water, thickener supernatant, or liquids from dewatering process shall collect and retain on file all of the following recycle flow information for review and evaluation by the department:
(a) Copy of the recycle notification and information submitted to the department under 40 CFR §141.76(b), which is adopted by reference. The adopted material is available from the superintendent of documents at the address in R 325.10116(b) for a cost of $61.00 at the time of adoption of these rules. The adopted material is available for inspection, or copies are available at no cost from the offices of the department at the address in R 325.10116(a).
(b) A list of all recycle flows and the frequency with which they are returned.
(c) The average and maximum backwash flow rate through the filters and the average and maximum duration of the filter backwash process in minutes.
(d) The typical filter run length and a written summary of how filter run length is determined.
(e) The type of treatment provided for the recycle flow.
(f) Data on the physical dimensions of the equalization or treatment units, or both, typical and maximum hydraulic loading rates, type of treatment chemicals used and average dose and frequency of use, and frequency at which solids are removed, if applicable.
History: 1954 ACS 94, Eff. Jan. 12, 1978; 1979 AC; 1994 MR 12, Eff. Jan. 5, 1995; 2002 MR 10, Eff. May 30, 2002; 2003 MR 2, Eff. Jan. 29, 2003; 2005 MR 6, Eff. Apr. 6, 2005.

PART 19. EXAMINATION AND CERTIFICATION OF OPERATORS

R 325.11901
Source: 1998-2000 AACS.

R 325.11902
Source: 1998-2000 AACS.

R 325.11903
Source: 1998-2000 AACS.

R 325.11904
Source: 1998-2000 AACS.

R 325.11905
Source: 1998-2000 AACS.

R 325.11906
Source: 1998-2000 AACS.

R 325.11906a
Source: 1998-2000 AACS.

R 325.11906b

Source: 1998-2000 AACS.

R 325.11907
Source: 1991 AACS.

R 325.11908
Source: 1998-2000 AACS.

R 325.11909
Source: 1991 AACS.

R 325.11910
Source: 1998-2000 AACS.

R 325.11911
Source: 1998-2000 AACS.

R 325.11912
Source: 1998-2000 AACS.

R 325.11913
Source: 1998-2000 AACS.

R 325.11914
Source: 1998-2000 AACS.

R 325.11915
Source: 1998-2000 AACS.

R 325.11915a
Source: 1998-2000 AACS.

R 325.11916
Source: 1997 AACS.

R 325.11917
Source: 1998-2000 AACS.

PART 27. LABORATORY CERTIFICATION

R 325.12701
Source: 1994 AACS.

R 325.12702 Certification for inorganic chemical analyses.
Rule 2702. (1) To receive certification to conduct analyses for antimony, arsenic, asbestos, barium, beryllium, cadmium, chromium, cyanide, fluoride, mercury, nickel, nitrate, nitrite, selenium, and thallium, a laboratory shall comply with both of the following provisions:
(a) Analyze performance evaluation samples provided by the United States environmental protection agency, the department, or by a third party, with the approval of the department or the United States environmental protection agency, at least once per year.
(b) For each contaminant that has been included in the performance evaluation sample and for each method for which the laboratory desires certification, achieve quantitative results on the analyses that are within the acceptance limits in table 1 of this rule.

Table 1 Acceptance limits

Contaminant	Acceptance Limit milligrams per liter (mg/l)
Antimony	+/-30% at 0.006 mg/l.

Arsenic	+/-30% at 0.003 mg/l
Asbestos	2 standard deviations based on study statistics.
Barium	+/-15% at 0.15 mg/l.
Beryllium	+/-15% at 0.001 mg/l.
Cadmium	+/-20% at 0.002 mg/l.
Chromium	+/-15% at 0.01 mg/l.
Copper	+/-10% at 0.050 mg/l.
Cyanide	+/-25% at 0.1 mg/l.
Fluoride	+/-10% at 1 to 10 mg/l.
Lead	+/-30% at 0.0050 mg/l.
Mercury	+/-30% at 0.0005 mg/l.
Nickel	+/-15% at 0.01 mg/l.
Nitrate	+/-10% at 0.4 mg/l.
Nitrite	+/-15% at 0.4 mg/l.
Selenium	+/-20% at 0.01 mg/l.
Thallium	+/-30% at 0.002 mg/l.

(2) To receive certification to conduct analyses for lead and copper, a laboratory shall be in compliance with all of the following requirements:
(a) Analyze performance evaluation samples, including lead and copper, that are provided by the United States environmental protection agency, the department, or by a third party, with the approval of the department or the United States environmental protection agency, at least once per year by each method for which the laboratory desires certification.
(b) Achieve quantitative acceptance limits as specified in table 1 of this rule and as follows:
(i) Lead: +/-30% of the actual amount in the performance evaluation sample when the actual amount is greater than or equal to 0.005 mg/l. the practical quantitation level, or PQL, for lead is 0.005 mg/l.
(ii) Copper: +/-10% of the actual amount in the performance evaluation sample when the actual amount is greater than or equal to 0.050 mg/l. the practical quantitation level, or PQL, for copper is 0.050 mg/l.
(c) Achieve method detection limits (MDLs) according to the procedures specified in 40 C.F.R. part 136, appendix B, as follows:
(i) Lead: 0.001 mg/l, only if source water compositing is performed.
(ii) Copper: 0.001 mg/l, or 0.020 mg/l when atomic absorption direct aspiration is used, only if source water compositing is performed.
(d) All lead and copper levels measured between the PQL and MDL shall be either reported as measured or they shall be reported as 1/2 the PQL specified for lead and copper in subdivision (b) of this subrule. All levels below the lead and copper MDLs shall be reported as zero.
(e) All copper levels measured between the PQL and the MDL shall be either reported as measured or they shall be reported as 1/2 the PQL (0.025 mg/l). All levels below the copper MDL shall be reported as zero.
History: 1994 MR 12, Eff. Jan. 5, 1995; 1998 MR 3, Eff. Apr. 8,1998; 2005 MR 6, Eff. Apr. 6, 2005.

R 325.12705 Certification for VOC analyses.
Rule 2705. (1) To receive certification to conduct analyses for the VOCs, other than vinyl chloride, in table 1 of R 325.10604b, a laboratory shall be in compliance with all of the following requirements:
(a) Analyze performance evaluation samples which include the VOCs, other than vinyl chloride, in table 1 of R 325.10604b, and which are provided by the United States environmental protection agency, the department, or by a third party, with the approval of the department or the United States environmental protection agency, at least once per year by each method for which the laboratory desires certification.
(b) Achieve the quantitative acceptance limits specified in subdivisions (c) and (d) of this subrule for not less than 80% of the regulated organic chemicals in table 1 of R 325.10604b.
(c) Achieve quantitative results on the analyses performed under subdivision (a) of this subrule that are within +/-20% of the actual amount of the substances in the performance evaluation sample when the actual amount is greater than or equal to 0.010 mg/l.
(d) Achieve quantitative results on the analyses performed under subdivision (a) of this subrule that are within +/-40% of the actual amount of the substances in the performance evaluation sample when the actual amount is less than 0.010 mg/l.

(e) Achieve a method detection limit of 0.0005 mg/l, according to the procedures specified in 40 C.F.R. part 136, appendix B.
(2) To receive certification for vinyl chloride, a laboratory shall be in compliance with all of the following requirements:
(a) Analyze performance evaluation samples provided by the United States environmental protection agency, the department, or by a third party, with the approval of the department or the United States environmental protection agency, at least once per year by each method for which the laboratory desires certification.
(b) Achieve quantitative results on the analyses performed under subdivision (a) of this subrule that are within +/-40% of the actual amount of vinyl chloride in the performance evaluation sample.
(c) Achieve a method detection limit of 0.0005 mg/l, according to the procedures specified in 40 C.F.R. part 136, appendix B.
(d) Obtain certification for the VOCs listed in part 6, table 1 of R 325.10604b.
(3) Each certified laboratory shall determine the method detection limit (MDL), as defined in 40 C.F.R. part 136, appendix B, at which the laboratory is capable of detecting VOCs. The acceptable MDL is 0.0005 mg/l.
(4) To composite samples, the laboratory shall be in compliance with both of the following provisions:
(a) For compositing samples before gas chromatograph (GC) analysis, be in compliance with all of the following provisions:
(i) Add 5 ml or equal larger amounts of each sample (up to 5 samples are allowed) to a 25-ml glass syringe. Special precautions shall be taken to maintain zero headspace in the syringe.
(ii) The samples shall be cooled at 4° Celsius during compositing to minimize volatilization losses.
(iii) Mix well and draw out a 5-ml aliquot for analysis.
(iv) Follow sample introduction, purging, and desorption steps described in the method.
(v) If less than 5 samples are used for compositing, a proportionately smaller syringe may be used.
(b) For compositing samples before GC/MS analysis, be in compliance with all of the following provisions:
(i) Inject 5-ml or equal larger amounts of each aqueous sample (up to 5 samples are allowed) into a 25-ml purging device using the sample introduction technique described in the method.
(ii) The total volume of the sample in the purging device shall be 25 ml.
(iii) Purge and desorb as described in the method.
(5) 40 C.F.R. part 136, appendix B, is adopted by reference in these rules. The adopted material is available from the superintendent of documents at the address in R 325.10116(b) for a cost of $61.00 at the time of adoption of these rules. The adopted material is available for inspection, or copies are available at no cost from the offices of the department at the address in R 325.10116(a).
History: 1994 MR 12, Eff. Jan. 5, 1995; 1998 MR 3, Eff. Apr. 8, 1998; 2005 MR 6, Eff. Apr. 6, 2005.

R 325.12706 Certification for SOC analyses.
Rule 2706. To receive certification to conduct analyses for the SOCs in table 1 of R 325.10604d, a laboratory shall be in compliance with both of the following provisions:
(a) Analyze performance evaluation samples which include the SOCs in table 1 of R 325.10604d, that are provided by the United States environmental protection agency, the department, or by a third party, with the approval of the department or the United States environmental protection agency, at least once per year by each method for which the laboratory desires certification.
(b) For each contaminant that has been included in the performance evaluation sample, achieve quantitative results on the analyses that are within the acceptance limits listed in table 1 of this rule.

Table 1 Acceptance limits

Contaminant	Acceptance Limits (percent)
DBCP	+/-40.
EDB	+/-40.
Alachlor	+/-45.
Atrazine	+/-45.
Benzo[a]pyrene	2 standard deviations.
Carbofuran	+/-45.
Chlordane	+/-45.
Dalapon	2 standard deviations.

Di(2-ethylhexyl)adipate	2 standard deviations.
Di(2-ethylhexyl)phthalate	2 standard deviations.
Dinoseb	2 standard deviations.
Diquat	2 standard deviations.
Endothall	2 standard deviations.
Endrin	+/-30.
Glyphosate	2 standard deviations.
Heptachlor	+/-45.
Heptachlor epoxide	+/-45.
Hexachlorobenzene	2 standard deviations.
Hexachlorocyclopentadiene	2 standard deviations.
Lindane	+/-45.
Methoxychlor	+/-45.
Oxamyl	2 standard deviations.
PCBs (as decachlorobiphenyl)	0-200.
Picloram	2 standard deviations.
Simazine	2 standard deviations.
Toxaphene	+/-45.
Aldicarb	2 standard deviations.
Aldicarb sulfoxide	2 standard deviations.
Aldicarb sulfone	2 standard deviations.
Pentachlorophenol	+/-50.
2,3,7,8-TCDD (dioxin)	2 standard deviations.
2,4-D	+/-50.
2,4,5-TP (silvex)	+/-50.

History: 1994 MR 12, Eff. Jan. 5, 1995; 2005 MR 6, Eff. Apr. 6, 2005.

PART 28. WELLHEAD PROTECTION GRANT ASSISTANCE

R. 325.12801
Source: 1998-2000 AACS.

R 325.12802
Source: 1998-2000 AACS.

R 325.12803
Source: 1998-2000 AACS.

R 325.12804
Source: 1998-2000 AACS.

R 325.12805
Source: 1998-2000 AACS.

R 325.12806
Source: 1998-2000 AACS.

R 325.12807
Source: 1998-2000 AACS.

R 325.12808
Source: 1998-2000 AACS.

R 325.12809
Source: 1998-2000 AACS.

R 325.12810

Source: 1998-2000 AACS.

R 325.12811
Source: 1998-2000 AACS.

R 325.12812
Source: 1998-2000 AACS.

R 325.12813
Source: 1998-2000 AACS.

R 325.12814
Source: 1998-2000 AACS.

R 325.12815
Source: 1998-2000 AACS.

R 325.12816
Source: 1998-2000 AACS.

R 325.12817
Source: 1998-2000 AACS.

R 325.12818
Source: 1998-2000 AACS.

R 325.12819
Source: 1998-2000 AACS.

R 325.12820
Source: 1998-2000 AACS.

DEPARTMENT OF COMMUNITY HEALTH

OFFICE OF LOCAL HEALTH SERVICES

LOCAL HEALTH PERSONNEL

R 325.13001
Source: 1980 AACS.

R 325.13002
Source: 1980 AACS.

R 325.13003
Source: 1980 AACS.

R 325.13004
Source: 1980 AACS.

R 325.13005
Source: 1980 AACS.

R 325.13006
Source: 1980 AACS.

R 325.13007
Source: 1980 AACS.

R 325.13008
Source: 1980 AACS.

R 325.13009
Source: 1980 AACS.

COST-SHARED SERVICES

R 325.13051
Source: 1981 AACS.

R 325.13053
Source: 1981 AACS.

R 325.13055
Source: 1981 AACS.

R 325.13057
Source: 1981 AACS.

R 325.13059
Source: 1981 AACS.

R 325.13061
Source: 1981 AACS.

R 325.13063
Source: 1981 AACS.

R 325.13065
Source: 1981 AACS.

R 325.13067
Source: 1981 AACS.

R 325.13069
Source: 1981 AACS.

R 325.13071
Source: 1981 AACS.

DIVISION OF CHILD HEALTH

VISION SCREENING AND TESTING

R 325.13091
Source: 2004 AACS.

R 325.13092
Source: 2004 AACS.

R 325.13093
Source: 1981 AACS.

R 325.13094
Source: 2004 AACS.

R 325.13095

Source: 1981 AACS.

R 325.13096
Source: 1981 AACS.

DEPARTMENT OF CONSUMER AND INDUSTRY SERVICES

BUREAU OF HEALTH FACILITIES

HOSPICE

PART 1. GENERAL PROVISIONS

R 325.13101
Source: 2003 AACS.

R 325.13102
Source: 2003 AACS.

R 325.13104
Source: 2003 AACS.

R 325.13105
Source: 2003 AACS.

R 325.13106
Source: 2003 AACS.

R 325.13107
Source: 2003 AACS.

R 325.13108
Source: 2003 AACS.

R 325.13109
Source: 2003 AACS.

R 325.13110
Source: 2003 AACS.

R 325.13111
Source: 2003 AACS.

PART 2. LICENSURE

R 325.13201
Source: 2003 AACS.

R 325.13202
Source: 2003 AACS.

R 325.13203
Source: 1984 AACS.

R 325.13204
Source: 1984 AACS.

R 325.13205
Source: 2003 AACS.

R 325.13206
Source: 2003 AACS.

R 325.13207
Source: 2003 AACS.

R 325.13208
Source: 2003 AACS.

R 325.13209
Source: 2003 AACS.

R 325.13210
Source: 1984 AACS.

R 325.13211
Source: 2003 AACS.

R 325.13212
Source: 2003 AACS.

R 325.13213
Source: 2003 AACS.

PART 3. SERVICES

R 325.13301
Source: 2003 AACS.

R 325.13302
Source: 2003 AACS.

R 325.13303
Source: 2003 AACS.

R 325.13304
Source: 2003 AACS.

R 325.13305
Source: 2003 AACS.

R 325.13306
Source: 2003 AACS.

R 325.13307
Source: 2003 AACS.

PART 4. HEARING PROCEDURE

R 325.13401
Source: 2003 AACS.

R 325.13402
Source: 2003 AACS.

R 325.13403
Source: 2003 AACS.

R 325.13404
Source: 2003 AACS.

R 325.13405
Source: 2003 AACS.

R 325.13406
Source: 2003 AACS.

R 325.13407
Source: 2003 AACS.

R 325.13408
Source: 2003 AACS.

R 325.13409
Source: 2003 AACS.

R 325.13410
Source: 2003 AACS.

R 325.13411
Source: 2003 AACS.

R 325.13412
Source: 2003 AACS.

R 325.13413
Source: 2003 AACS.

R 325.13414
Source: 2003 AACS.

R 325.13415
Source: 2003 AACS.

R 325.13416
Source: 2003 AACS.

R 325.13417
Source: 2003 AACS.

R 325.13418
Source: 2003 AACS.

PART 5. HOSPICE RESIDENCES PROVIDING CARE ONLY AT THE HOME CARE LEVEL

R 325.13501
Source: 2003 AACS.

R 325.13503
Source: 2003 AACS.

R 325.13505
Source: 2003 AACS.

R 325.13507

Source: 2003 AACS.

R 325.13509
Source: 2003 AACS.

R 325.13511
Source: 2003 AACS.

R 325.13513
Source: 2003 AACS.

R 325.13515
Source: 2003 AACS.

R 325.13517
Source: 2003 AACS.

R 325.13519
Source: 2003 AACS.

R 325.13521
Source: 2003 AACS.

R 325.13523
Source: 2003 AACS.

R 325.13525
Source: 2003 AACS.

R 325.13527
Source: 2003 AACS.

R 325.13529
Source: 2003 AACS.

R 325.13531
Source: 2003 AACS.

R 325.13533
Source: 2003 AACS.

R 325.13535
Source: 2003 AACS.

R 325.13537
Source: 2003 AACS.

R 325.13539
Source: 2003 AACS.

R 325.13541
Source: 2003 AACS.

R 325.13543
Source: 2003 AACS.

DEPARTMENT OF COMMUNITY HEALTH

OFFICE OF SUBSTANCE ABUSE SERVICES

SUBSTANCE ABUSE SERVICE PROGRAM

PART 1. GENERAL PROVISIONS

R 325.14101
Source: 1981 AACS.

R 325.14102
Source: 1981 AACS.

R 325.14103
Source: 1981 AACS.

R 325.14104
Source: 1981 AACS.

R 325.14105
Source: 1981 AACS.

R 325.14106
Source: 1981 AACS.

R 325.14107
Source: 1981 AACS.

R 325.14108
Source: 1981 AACS.

R 325.14109
Source: 1981 AACS.

R 325.14110
Source: 1981 AACS.

R 325.14111
Source: 1981 AACS.

R 325.14112
Source: 1981 AACS.

R 325.14113
Source: 1981 AACS.

R 325.14114
Source: 1981 AACS.

R 325.14115
Source: 1981 AACS.

R 325.14116
Source: 1988 AACS.

R 325.14117
Source: 1981 AACS.

R 325.14125
Source: 1981 AACS.

PART 2. LICENSURE OF SUBSTANCE ABUSE PROGRAMS

R 325.14201
Source: 1981 AACS.

R 325.14202
Source: 1981 AACS.

R 325.14203
Source: 1981 AACS.

R 325.14204
Source: 1981 AACS.

R 325.14205
Source: 1981 AACS.

R 325.14206
Source: 1981 AACS.

R 325.14207
Source: 1981 AACS.

R 325.14208
Source: 1981 AACS.

R 325.14209
Source: 1981 AACS.

R 325.14210
Source: 1981 AACS.

R 325.14211
Source: 1981 AACS.

R 325.14212
Source: 1981 AACS.

R 325.14213
Source: 1981 AACS.

R 325.14214
Source: 1981 AACS.

PART 3. RECIPIENT RIGHTS

R 325.14301
Source: 1981 AACS.

R 325.14302
Source: 1981 AACS.

R 325.14303
Source: 1981 AACS.

R 325.14304
Source: 1981 AACS.

R 325.14305
Source: 1981 AACS.

R 325.14306
Source: 1981 AACS.

PART 4. METHADONE TREATMENT AND OTHER CHEMOTHERAPY

R 325.14401
Source: 1981 AACS.

R 325.14402
Source: 1981 AACS.

R 325.14403
Source: 1981 AACS.

R 325.14404
Source: 1981 AACS.

R 325.14405
Source: 1981 AACS.

R 325.14406
Source: 1981 AACS.

R 325.14407
Source: 1981 AACS.

R 325.14408
Source: 1981 AACS.

R 325.14409
Source: 1981 AACS.

R 325.14410
Source: 1981 AACS.

R 325.14411
Source: 1981 AACS.

R 325.14412
Source: 1981 AACS.

R 325.14413
Source: 1981 AACS.

R 325.14414
Source: 1981 AACS.

R 325.14415
Source: 1981 AACS.

R 325.14416
Source: 1981 AACS.

R 325.14417
Source: 1981 AACS.

R 325.14418
Source: 1981 AACS.

R 325.14419
Source: 1981 AACS.

R 325.14420
Source: 1981 AACS.

R 325.14421
Source: 1981 AACS.

R 325.14422
Source: 1981 AACS.

R 325.14423
Source: 1981 AACS.

PART 5. PREVENTION

R 325.14501
Source: 1981 AACS.

R 325.14521
Source: 1981 AACS.

R 325.14522
Source: 1981 AACS.

R 325.14523
Source: 1981 AACS.

R 325.14524
Source: 1981 AACS.

R 325.14525
Source: 1981 AACS.

R 325.14526
Source: 1981 AACS.

R 325.14527
Source: 1981 AACS.

R 325.14528
Source: 1981 AACS.

R 325.14529
Source: 1981 AACS.

R 325.14530
Source: 1981 AACS.

PART 6. CASEFINDING

R 325.14601
Source: 1981 AACS.

R 325.14602
Source: 1981 AACS.

R 325.14603
Source: 1981 AACS.

R 325.14621
Source: 1981 AACS.

R 325.14622
Source: 1981 AACS.

R 325.14623
Source: 1981 AACS.

PART 7. OUTPATIENT PROGRAMS

R 325.14701
Source: 1981 AACS.

R 325.14702
Source: 1981 AACS.

R 325.14703
Source: 1981 AACS.

R 325.14704
Source: 1981 AACS.

R 325.14705
Source: 1981 AACS.

R 325.14706
Source: 1981 AACS.

R 325.14707
Source: 1981 AACS.

R 325.14708
Source: 1981 AACS.

R 325.14709
Source: 1981 AACS.

R 325.14710
Source: 1981 AACS.

R 325.14711
Source: 1981 AACS.

R 325.14712
Source: 1981 AACS.

PART 8. INPATIENT PROGRAMS

R 325.14801
Source: 1981 AACS.

R 325.14802
Source: 1981 AACS.

R 325.14803
Source: 1981 AACS.

R 325.14804
Source: 1981 AACS.

R 325.14805
Source: 1981 AACS.

R 325.14806
Source: 1981 AACS.

R 325.14807
Source: 1981 AACS.

PART 9. RESIDENTIAL PROGRAMS

R 325.14901
Source: 1981 AACS.

R 325.14902
Source: 1981 AACS.

R 325.14903
Source: 1981 AACS.

R 325.14904
Source: 1981 AACS.

R 325.14905
Source: 1981 AACS.

R 325.14906
Source: 1981 AACS.

R 325.14907
Source: 1981 AACS.

R 325.14908
Source: 1981 AACS.

R 325.14909
Source: 1981 AACS.

R 325.14910
Source: 1981 AACS.

R 325.14911
Source: 1981 AACS.

R 325.14921
Source: 1981 AACS.

R 325.14922
Source: 1981 AACS.

R 325.14923
Source: 1981 AACS.

R 325.14924
Source: 1981 AACS.

R 325.14925
Source: 1981 AACS.

R 325.14926
Source: 1981 AACS.

R 325.14927
Source: 1981 AACS.

R 325.14928
Source: 1981 AACS.

DEPARTMENT OF ENVIRONMENTAL QUALITY

DIVISION OF OCCUPATIONAL HEALTH

CLASS IV DRY CLEANING ESTABLISHMENTS

PART 1. GENERAL PROVISIONS

R 325.17101
Source: 2004 AACS.

R 325.17102
Source: 2004 AACS.

R 325.17103
Source: 2004 AACS.

R 325.17104
Source: 2004 AACS.

R 325.17105
Source: 2004 AACS.

R 325.17106
Source: 2004 AACS.

R 325.17107
Source: 2004 AACS.

R 325.17108
Source: 2004 AACS.

R 325.17109
Source: 2004 AACS.

PART 2. DRAWINGS

R 325.17201
Source: 2004 AACS.

R 325.17202
Source: 2004 AACS.

R 325.17203
Source: 2004 AACS.

R 325.17203a
Source: 2004 AACS.

R 325.17204
Source: 2004 AACS.

R 325.17205
Source: 2004 AACS.

R 325.17206
Source: 2004 AACS.

R 325.17207
Source: 2004 AACS.

R 325.17208
Source: 2004 AACS.

R 325.17209
Source: 2004 AACS.

R 325.17210
Source: 2004 AACS.

R 325.17211
Source: 2004 AACS.

PART 3. LICENSURE

R 325.17301
Source: 2004 AACS.

R 325.17302
Source: 2004 AACS.

R 325.17303
Source: 2004 AACS.

R 325.17304
Source: 2004 AACS.

R 325.17305
Source: 2004 AACS.

R 325.17306
Source: 2004 AACS.

R 325.17307
Source: 2004 AACS.

R 325.17308
Source: 2004 AACS.

R 325.17309
Source: 2004 AACS.

PART 4. DRY CLEANING MACHINE REQUIREMENTS

R 325.17401
Source: 2004 AACS.

R 325.17402
Source: 2004 AACS.

R 325.17403
Source: 2004 AACS.

R 325.17404
Source: 2004 AACS.

R 325.17405
Source: 2004 AACS.

R 325.17406
Source: 2004 AACS.

R 325.17407
Source: 2004 AACS.

R 325.17408
Source: 2004 AACS.

R 325.17409
Source: 2004 AACS.

PART 5. BUILDING REQUIREMENTS

R 325.17501
Source: 2004 AACS.

R 325.17502
Source: 2004 AACS.

R 325.17503
Source: 2004 AACS.

R 325.17504
Source: 2004 AACS.

R 325.17505
Source: 2004 AACS.

R 325.17506
Source: 2004 AACS.

R 325.17507
Source: 2004 AACS.

R 325.17508
Source: 2004 AACS.

R 325.17509
Source: 2004 AACS.

R 325.17510
Source: 2004 AACS.

PART 7. INSTALLATION, OPERATION, AND VENTILATION

R 325.17701
Source: 2004 AACS.

R 325.17702
Source: 2004 AACS.

R 325.17703
Source: 2004 AACS.

R 325.17704
Source: 2004 AACS.

R 325.17705
Source: 2004 AACS.

R 325.17706
Source: 2004 AACS.

R 325.17707
Source: 2004 AACS.

R 325.17708
Source: 2004 AACS.

R 325.17709
Source: 2004 AACS.

R 325.17710
Source: 2004 AACS.

R 325.17711
Source: 2004 AACS.

R 325.17712
Source: 2004 AACS.

R 325.17713
Source: 2004 AACS.

R 325.17714
Source: 2004 AACS.

PART 9. INSPECTIONS OF DRY CLEANING ESTABLISHMENTS

R 325.17901
Source: 2004 AACS.

R 325.17902
Source: 2004 AACS.

R 325.17903
Source: 2004 AACS.

R 325.17904
Source: 2004 AACS.

R 325.17905
Source: 2004 AACS.

R 325.17906
Source: 2004 AACS.

PART 10. CONTESTED CASES

R 325.18001
Source: 2004 AACS.

R 325.18002
Source: 2004 AACS.

R 325.18003
Source: 2004 AACS.

R 325.18004
Source: 2004 AACS.

R 325.18005
Source: 2004 AACS.

R 325.18006
Source: 2004 AACS.

PART 11. TYPICAL DESIGN PRINTS AND DIAGRAMS

R 325.18101
Source: 2004 AACS.

R 325.18102
Source: 2004 AACS.

R 325.18103
Source: 2004 AACS.

R 325.18104
Source: 2004 AACS.

DEPARTMENT OF CONSUMER AND INDUSTRY SERVICES

OCCUPATIONAL HEALTH STANDARDS COMMISSION

PROCESS SAFETY MANAGEMENT OF HIGHLY HAZARDOUS CHEMICALS

R 325.18301
Source: 1998-2000 AACS.

R 325.18302
Source: 1998-2000 AACS.

HEALTH FACILITIES SERVICES ADMINISTRATION

NURSING HOMES AND NURSING CARE FACILITIES

PART 1. GENERAL PROVISIONS

R 325.20101
Source: 1981 AACS.

R 325.20102
Source: 1981 AACS.

R 325.20103
Source: 1981 AACS.

R 325.20104
Source: 1983 AACS.

R 325.20106
Source: 1981 AACS.

R 325.20107
Source: 1981 AACS.

R 325.20108
Source: 1981 AACS.

R 325.20109
Source: 1981 AACS.

R 325.20110
Source: 1981 AACS.

R 325.20111
Source: 1981 AACS.

R 325.20112
Source: 1981 AACS.

R 325.20113
Source: 1983 AACS.

R 325.20114
Source: 1981 AACS.

R 325.20115
Source: 1981 AACS.

R 325.20116
Source: 1981 AACS.

R 325.20117
Source: 1983 AACS.

R 325.20118
Source: 1981 AACS.

PART 2. LICENSURE

R 325.20201
Source: 1981 AACS.

R 325.20202
Source: 1981 AACS.

R 325.20203
Source: 1981 AACS.

R 325.20204
Source: 1981 AACS.

R 325.20205
Source: 1981 AACS.

R 325.20206
Source: 1983 AACS.

R 325.20207
Source: 1981 AACS.

R 325.20208
Source: 1981 AACS.

R 325.20209
Source: 1981 AACS.

R 325.20210
Source: 1981 AACS.

R 325.20211
Source: 1981 AACS.

R 325.20212
Source: 1981 AACS.

R 325.20213
Source: 1981 AACS.

R 325.20214
Source: 1981 AACS.

R 325.20215
Source: 1981 AACS.

PART 3. ACCESS TO NURSING HOMES AND PATIENTS

R 325.20301
Source: 1981 AACS.

R 325.20302
Source: 1983 AACS.

R 325.20303
Source: 1983 AACS.

R 325.20304
Source: 1983 AACS.

PART 4. ADMINISTRATIVE MANAGEMENT OF HOMES

R 325.20401
Source: 1981 AACS.

R 325.20402
Source: 1981 AACS.

R 325.20403
Source: 1981 AACS.

R 325.20404
Source: 1983 AACS.

R 325.20405
Source: 1981 AACS.

R 325.20406
Source: 1983 AACS.

R 325.20407
Source: 1981 AACS.

PART 5. PATIENT CARE

R 325.20501
Source: 1981 AACS.

R 325.20502
Source: 1983 AACS.

R 325.20503
Source: 1981 AACS.

R 325.20504
Source: 1981 AACS.

R 325.20505
Source: 1981 AACS.

R 325.20506
Source: 1981 AACS.

R 325.20507
Source: 1981 AACS.

R 325.20508
Source: 1981 AACS.

R 325.20509
Source: 1981 AACS.

PART 6. PHYSICIAN SERVICES

R 325.20601
Source: 1981 AACS.

R 325.20602
Source: 1981 AACS.

R 325.20603
Source: 1983 AACS.

R 325.20604
Source: 1981 AACS.

R 325.20605
Source: 1983 AACS.

R 325.20606
Source: 1981 AACS.

PART 7. NURSING SERVICES

R 325.20701
Source: 1983 AACS.

R 325.20702
Source: 1983 AACS.

R 325.20703
Source: 1986 AACS.

R 325.20704
Source: 1986 AACS.

R 325.20705
Source: 1981 AACS.

R 325.20706
Source: 1981 AACS.

R 325.20707
Source: 1983 AACS.

R 325.20708
Source: 1981 AACS.

R 325.20709
Source: 1984 AACS.

R 325.20710
Source: 1981 AACS.

R 325.20711
Source: 1983 AACS.

R 325.20712
Source: 1983 AACS.

R 325.20713
Source: 1981 AACS.

R 325.20714
Source: 1983 AACS.

PART 8. DIETARY SERVICES

R 325.20801
Source: 1983 AACS.

R 325.20802
Source: 1981 AACS.

R 325.20803
Source: 1981 AACS.

R 325.20804
Source: 1983 AACS.

R 325.20805
Source: 1981 AACS.

R 325.20806
Source: 1983 AACS.

PART 9. PHARMACEUTICAL SERVICES

R 325.20901
Source: 1983 AACS.

R 325.20902
Source: 1981 AACS.

R 325.20903
Source: 1981 AACS.

R 325.20904
Source: 1981 AACS.

R 325.20905
Source: 1981 AACS.

R 325.20906
Source: 1981 AACS.

PART 10. OTHER SERVICES

R 325.21001
Source: 1981 AACS.

R 325.21002

Source: 1981 AACS.

R 325.21003
Source: 1986 AACS.

PART 11. RECORDS

R 325.21101
Source: 1983 AACS.

R 325.21102
Source: 1983 AACS.

R 325.21103
Source: 1981 AACS.

R 325.21104
Source: 1981 AACS.

R 325.21105
Source: 1983 AACS.

PART 12. MEDICAL AUDIT, UTILIZATION REVIEW, AND QUALITY CONTROL

R 325.21201
Source: 1981 AACS.

R 325.21203
Source: 1981 AACS.

R 325.21204
Source: 1981 AACS.

PART 13. BUILDINGS AND GROUNDS

R 325.21301
Source: 1981 AACS.

R 325.21302
Source: 1981 AACS.

R 325.21303
Source: 1983 AACS.

R 325.21304
Source: 1981 AACS.

R 325.21305
Source: 1983 AACS.

R 325.21306
Source: 1983 AACS.

R 325.21307
Source: 1983 AACS.

R 325.21308
Source: 1981 AACS.

R 325.21309
Source: 1981 AACS.

R 325.21310
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R 325.21311
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R 325.21312
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R 325.21313
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R 325.21314
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R 325.21315
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R 325.21316
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R 325.21317
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R 325.21318
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R 325.21319
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R 325.21320
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R 325.21321
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R 325.21322
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R 325.21323
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R 325.21324
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R 325.21325
Source: 1981 AACS.

R 325.21326
Source: 1983 AACS.

R 325.21327
Source: 1983 AACS.

R 325.21328
Source: 1981 AACS.

PART 14. CHILD CARE HOMES AND CHILD CARE UNITS

R 325.21401
Source: 1981 AACS.

R 325.21402
Source: 1981 AACS.

R 325.21403
Source: 1981 AACS.

R 325.21404
Source: 1981 AACS.

R 325.21405
Source: 1981 AACS.

R 325.21406
Source: 1981 AACS.

R 325.21407
Source: 1981 AACS.

R 325.21408
Source: 1981 AACS.

R 325.21409
Source: 1981 AACS.

R 325.21410
Source: 1981 AACS.

R 325.21411
Source: 1981 AACS.

PART 15. CERTIFICATION

R 325.21501
Source: 1981 AACS.

R 325.21502
Source: 1981 AACS.

R 325.21503
Source: 1981 AACS.

R 325.21504
Source: 1981 AACS.

R 325.21505
Source: 1981 AACS.

R 325.21506
Source: 1981 AACS.

R 325.21507
Source: 1981 AACS.

R 325.21508
Source: 1981 AACS.

R 325.21509
Source: 1981 AACS.

R 325.21510
Source: 1981 AACS.

R 325.21511
Source: 1981 AACS.

R 325.21512
Source: 1981 AACS.

R 325.21513
Source: 1981 AACS.

R 325.21514
Source: 1981 AACS.

R 325.21515
Source: 1981 AACS.

PART 16. NURSING FACILITIES FOR CARE OF MENTALLY ILL PATIENTS

R 325.21601
Source: 1981 AACS.

R 325.21602
Source: 1981 AACS.

R 325.21603
Source: 1981 AACS.

R 325.21604
Source: 1981 AACS.

R 325.21605
Source: 1981 AACS.

PART 17. NURSING FACILITIES FOR CARE OF MENTALLY RETARDED PATIENTS

R 325.21701
Source: 1981 AACS.

R 325.21702
Source: 1981 AACS.

R 325.21703
Source: 1981 AACS.

R 325.21704
Source: 1981 AACS.

R 325.21705
Source: 1981 AACS.

PART 18. NURSING FACILITIES FOR CARE OF TUBERCULOSIS PATIENTS

R 325.21801
Source: 1981 AACS.

R 325.21802
Source: 1981 AACS.

R 325.21803
Source: 1981 AACS.

R 325.21804
Source: 1981 AACS.

R 325.21805
Source: 1981 AACS.

R 325.21806
Source: 1981 AACS.

R 325.21807
Source: 1981 AACS.

PART 19. HEARING PROCEDURE

R 325.21901
Source: 1981 AACS.

R 325.21902
Source: 1981 AACS.

R 325.21903
Source: 1981 AACS.

R 325.21904
Source: 1981 AACS.

R 325.21905
Source: 1981 AACS.

R 325.21906
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R 325.21907
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R 325.21908
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R 325.21909
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R 325.21910
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R 325.21911
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R 325.21912
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R 325.21913
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R 325.21914
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R 325.21915
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R 325.21916
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R 325.21917
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R 325.21918
Source: 1981 AACS.

R 325.21919
Source: 1981 AACS.

R 325.21920
Source: 1981 AACS.

R 325.21921
Source: 1981 AACS.

R 325.21922
Source: 1981 AACS.

PART 20. EDUCATION AND TRAINING OF UNLICENSED NURSING PERSONNEL

R 325.22001
Source: 1983 AACS.

R 325.22002
Source: 1983 AACS.

R 325.22003
Source: 1983 AACS.

R 325.22003a
Source: 1984 AACS.

R 325.22004
Source: 1983 AACS.

DEPARTMENT OF COMMUNITY HEALTH

DIRECTOR'S OFFICE

EMERGENCY MEDICAL SERVICES - LIFE SUPPORT AGENCIES & MEDICAL CONTROL

PART 1. GENERAL PROVISIONS

R 325.22101
Source: 2004 AACS.

R 325.22102
Source: 2004 AACS.

R 325.22103
Source: 2004 AACS.

R 325.22104
Source: 2004 AACS.

PART 2. LIFE SUPPORT AGENCIES-GENERAL

R 325.22111
Source: 2004 AACS.

R 325.22112
Source: 2004 AACS.

R 325.22113
Source: 2004 AACS.

R 325.22114
Source: 2004 AACS.

R 325.22115
Source: 2004 AACS.

R 325.22116
Source: 2004 AACS.

R 325.22117
Source: 2004 AACS.

R 325.22118
Source: 2004 AACS.

R 325.22119
Source: 2004 AACS.

R 325.22120
Source: 2004 AACS.

R 325.22121
Source: 2004 AACS.

R 325.22122
Source: 2004 AACS.

R 325.22123
Source: 2004 AACS.

R 325.22124
Source: 2004 AACS.

R 325.22125
Source: 2004 AACS.

R 325.22126
Source: 2004 AACS.

R 325.22127
Source: 2004 AACS.

PART 3. AMBULANCE OPERATIONS

R 325.22131
Source: 2004 AACS.

R325.22132
Source: 2004 AACS.

R 325.22133
Source: 2004 AACS.

R 325.22134
Source: 2004 AACS.

R 325.22135
Source: 2004 AACS.

R 325.22136
Source: 2004 AACS.

R 325.22137
Source: 2004 AACS.

R 325.22138
Source: 2004 AACS.

PART 4. NONTRANSPORT PREHOSPITAL LIFE SUPPORT OPERATIONS

R 325.22141
Source: 2004 AACS.

R 325.22142
Source: 2004 AACS.

R 325.22143
Source: 2004 AACS.

R 325.22144
Source: 2004 AACS.

R 325.22145
Source: 2004 AACS.

R 325.22146
Source: 2004 AACS.

PART 5. AIRCRAFT TRANSPORT OPERATIONS

R 325.22151
Source: 2004 AACS.

R325.22152
Source: 2004 AACS.

R 325.22153
Source: 2004 AACS.

R 325.22154
Source: 2004 AACS.

R 325.22155
Source: 2004 AACS.

R 325.22156
Source: 2004 AACS.

PART 6. MEDICAL FIRST RESPONSE SERVICES

R 325.22161
Source: 2004 AACS.

R 325.22162
Source: 2004 AACS.

R 325.22163
Source: 2004 AACS.

R 325.22164
Source: 2004 AACS.

R 325.22165
Source: 2004 AACS.

R 325.22166
Source: 2004 AACS.

PART 7. AMBULANCE OPERATION UPGRADE LICENSE

R 325.22171
Source: 2004 AACS.

R 325.22172
Source: 2004 AACS.

R 325.22173
Source: 2004 AACS.

R 325.22174
Source: 2004 AACS.

R 325.22175
Source: 2004 AACS.

R 325.22176
Source: 2004 AACS.

R 325.22177
Source: 2004 AACS.

PART 8. LIFE SUPPORT VEHICLES

R 325.22181
Source: 2004 AACS.

R 325.22182
Source: 2004 AACS.

R 325.22183
Source: 2004 AACS.

R 325.22184
Source: 2004 AACS.

R325.22185
Source: 2004 AACS.

R 325.22186
Source: 2004 AACS.

R 325.22187
Source: 2004 AACS.

R 325.22188
Source: 2004 AACS.

R 325.22189
Source: 2004 AACS.

R 325.22190
Source: 2004 AACS.

R 325.22191
Source: 2004 AACS.

PART 9. COMMUNICATIONS REQUIREMENTS

R 325.22192
Source: 2004 AACS.

R 325.22193
Source: 2004 AACS.

R 325.22194
Source: 2004 AACS.

R 325.22195
Source: 2004 AACS.

PART 10. MEDICAL CONTROL AUTHORITY

R 325.22201
Source: 2004 AACS.

R 325.22202
Source: 2004 AACS.

R 325.22203
Source: 2004 AACS.

R 325.22204
Source: 2004 AACS.

R 325.22205
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R 325.22206
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R 325.22207
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R 325.22208
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R 325.22209
Source: 2004 AACS.

R 325.22210
Source: 2004 AACS.

R 325.22211
Source: 2004 AACS.

R 325.22212
Source: 2004 AACS.

R 325.22213
Source: 2004 AACS.

R 325.22214
Source: 2004 AACS.

R 325.22215
Source: 2004 AACS.

R 325.22216
Source: 2004 AACS.

R 325.22217
Source: 2004 AACS.

DEPARTMENT OF COMMUNITY HEALTH

DIRECTOR'S OFFICE

EMERGENCY MEDICAL SERVICES PERSONNEL LICENSING

R 325.22301
Source: 2004 AACS.

R 325.22302
Source: 2004 AACS.

PART 2. EMERGENCY MEDICAL SERVICES PERSONNEL LICENSING

R 325.22311
Source: 2004 AACS.

R 325.22312
Source: 2004 AACS.

R 325.22313
Source: 2004 AACS.

R 325.22314
Source: 2004 AACS.

R 325.22315
Source: 2004 AACS.

R 325.22316
Source: 2004 AACS.

PART 3. CONTINUING EDUCATION REQUIREMENTS

R 325.22321
Source: 2004 AACS.

R 325.22322
Source: 2004 AACS.

R 325.22323
Source: 2004 AACS.

R 325.22324
Source: 2004 AACS.

R 325.22325
Source: 2004 AACS.

R 325.22326
Source: 2004 AACS.

R 325.22327
Source: 2004 AACS.

PART 4. INSTRUCTOR-COORDINATORS

R 325.22331
Source: 2004 AACS.

R 325.22332
Source: 2004 AACS.

R 325.22333
Source: 2004 AACS.

R 325.22334
Source: 2004 AACS.

R 325.22335
Source: 2004 AACS.

R 325.22336
Source: 2004 AACS.

R 325.22337
Source: 2004 AACS.

R 325.22338
Source: 2004 AACS.

PART 5. EDUCATION PROGRAM REQUIREMENTS

R 325.22339
Source: 2004 AACS.

R 325.22340
Source: 2004 AACS.

R 325.22341
Source: 2004 AACS.

R 325.22342
Source: 2004 AACS.

R 325.22343
Source: 2004 AACS.

R 325.22344
Source: 2004 AACS.

R 325.22345
Source: 2004 AACS.

PART 6. HEARING PROCEDURES

R 325.22346
Source: 2004 AACS.

R 325.22347
Source: 2004 AACS.

R 325.22348
Source: 2004 AACS.

R 325.22349
Source: 2004 AACS.

R 325.22350

Source: 2004 AACS.

R 325.22351
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R 325.22352
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R 325.22353
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R 325.22354
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R 325.22355
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R 325.22356
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R 325.22357
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R 325.22358
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R 325.22359
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R 325.22360
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R 325.22361
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R 325.22362
Source: 2004 AACS.

R 325.22363
Source: 2004 AACS.

R 325.23101
Source: 2004 AACS.

R 325.23102
Source: 2004 AACS.

R 325.23103
Source: 2004 AACS.

R 325.23104
Source: 2004 AACS.

R 325.23105
Source: 2004 AACS.

R 325.23106
Source: 2004 AACS.

R 325.23107
Source: 2004 AACS.

PART 2. EMERGENCY MEDICAL SERVICES SYSTEM

R 325.23201
Source: 2004 AACS.

R 325.23202
Source: 2004 AACS.

R 325.23203
Source: 2004 AACS.

PART 3. AMBULANCE PERSONNEL, AMBULANCE ATTENDANTS

R 325.23301
Source: 2004 AACS.

R 325.23302
Source: 2004 AACS.

R 325.23303
Source: 2004 AACS.

R 325.23304
Source: 2004 AACS.

PART 4. ADVANCED EMERGENCY MEDICAL TECHNICIANS, EMERGENCY MEDICAL TECHNICIAN SPECIALISTS, EMERGENCY MEDICAL TECHNICIANS

R 325.23401
Source: 2004 AACS.

R 325.23402
Source: 2004 AACS.

R 325.23403
Source: 2004 AACS.

R 325.23404
Source: 2004 AACS.

R 325.23405
Source: 2004 AACS.

R 325.23406
Source: 2004 AACS.

R 325.23407
Source: 2004 AACS.

PART 5. INSTRUCTOR-COORDINATORS

R 325.23501
Source: 2004 AACS.

R 325.23502
Source: 2004 AACS.

R 325.23503
Source: 2004 AACS.

R 325.23504
Source: 2004 AACS.

R 325.23505
Source: 2004 AACS.

R 325.23506
Source: 2004 AACS.

R 325.23507
Source: 2004 AACS.

PART 6. TRAINING PROGRAM REQUIREMENTS

R 325.23601
Source: 2004 AACS.

R 325.23602
Source: 2004 AACS.

R 325.23603
Source: 2004 AACS.

PART 7. MEDICAL CONTROL

R 325.23701
Source: 2004 AACS.

R 325.23702
Source: 2004 AACS.

R 325.23703
Source: 2004 AACS.

R 325.23704
Source: 2004 AACS.

R 325.23705
Source: 2004 AACS.

R 325.23706
Source: 2004 AACS.

R 325.23707
Source: 2004 AACS.

PART 8. ADVANCED AND LIMITED ADVANCED MOBILE EMERGENCY CARE SERVICES

R 325.23801
Source: 2004 AACS.

R 325.23802
Source: 2004 AACS.

R 325.23803
Source: 2004 AACS.

R 325.23804
Source: 2004 AACS.

R 325.23805
Source: 2004 AACS.

R 325.23806
Source: 2004 AACS.

R 325.23807
Source: 2004 AACS.

R 325.23808
Source: 2004 AACS.

PART 9. AMBULANCE OPERATIONS

R 325.23901
Source: 2004 AACS.

R 325.23902
Source: 2004 AACS.

R 325.23903
Source: 2004 AACS.

R 325.23904
Source: 2004 AACS.

R 325.23905
Source: 2004 AACS.

R 325.23906
Source: 2004 AACS.

PART 10. VEHICLE STANDARDS

R 325.24001
Source: 2004 AACS.

R 325.24002
Source: 2004 AACS.

R 325.24003
Source: 2004 AACS.

R 325.24005
Source: 2004 AACS.

R 325.24006
Source: 2004 AACS.

R 325.24007
Source: 2004 AACS.

R 325.24008
Source: 2004 AACS.

R 325.24009
Source: 2004 AACS.

R 325.24010
Source: 2004 AACS.

R 325.24011
Source: 2004 AACS.

R 325.24012
Source: 2004 AACS.

R 325.24013
Source: 2004 AACS.

R 325.24014
Source: 2004 AACS.

R 325.24015
Source: 2004 AACS.

R 325.24016
Source: 2004 AACS.

R 325.24017
Source: 2004 AACS.

R 325.24018
Source: 2004 AACS.

R 325.24020
Source: 2004 AACS.

PART 11. HEARING PROCEDURES

R 325.24101
Source: 2004 AACS.

R 325.24102
Source: 2004 AACS.

R 325.24103
Source: 2004 AACS.

R 325.24104
Source: 2004 AACS.

R 325.24105
Source: 2004 AACS.

R 325.24106
Source: 2004 AACS.

R 325.24107
Source: 2004 AACS.

R 325.24108
Source: 2004 AACS.

R 325.24109
Source: 2004 AACS.

R 325.24110
Source: 2004 AACS.

R 325.24111
Source: 2004 AACS.

R 325.24112
Source: 2004 AACS.

R 325.24113
Source: 2004 AACS.

R 325.24114
Source: 2004 AACS.

R 325.24115
Source: 2004 AACS.

R 325.24116
Source: 2004 AACS.

R 325.24117
Source: 2004 AACS.

R 325.24118
Source: 2004 AACS.

DEPARTMENT OF AGRICULTURE

BUREAU OF ENVIRONMENTAL AND OCCUPATIONAL HEALTH

FOOD SERVICE SANITATION

PART 1. GENERAL PROVISIONS

R 325.25101
Source: 2001 AACS.

R 325.25102
Source: 2001 AACS.

R 325.25103
Source: 2001 AACS.

R 325.25104
Source: 2001 AACS.

R 325.25105
Source: 2001 AACS.

R 325.25106
Source: 2001 AACS.

PART 4. DEPARTMENT AND LOCAL HEALTH DEPARTMENT PROGRAM REQUIREMENTS, PROCEDURES, AND EVALUATIONS

R 325.25401
Source: 2001 AACS.

R 325.25402
Source: 2001 AACS.

R 325.25403
Source: 2001 AACS.

R 325.25404
Source: 2001 AACS.

R 325.25405
Source: 2001 AACS.

R 325.25502
Source: 2001 AACS.

R 325.25503
Source: 2001 AACS.

R 325.25504
Source: 2001 AACS.

R 325.25505
Source: 2001 AACS.

PART 6. TEMPORARY AND MOBILE FOOD SERVICE ESTABLISHMENTS

R 325.25601
Source: 2001 AACS.

R 325.25602
Source: 2001 AACS.

R 325.25603
Source: 2001 AACS.

R 325.25604
Source: 2001 AACS.

R 325.25605
Source: 2001 AACS.

R 325.25606
Source: 2001 AACS.

R 325.25607
Source: 2001 AACS.

PART 7. PLAN SUBMITTAL AND REVIEW

R 325.25701
Source: 2001 AACS.

R 325.25702
Source: 2001 AACS.

R 325.25703
Source: 2001 AACS.

R 325.25704
Source: 2001 AACS.

R 325.25705
Source: 2001 AACS.

R 325.25706
Source: 2001 AACS.

R 325.25707
Source: 2001 AACS.

R 325.25708
Source: 2001 AACS.

PART 8. LICENSING AND ENFORCEMENT

R 325.25801
Source: 2001 AACS.

R 325.25802
Source: 2001 AACS.

R 325.25803
Source: 2001 AACS.

R 325.25804
Source: 2001 AACS.

R 325.25805
Source: 2001 AACS.

R 325.25806

Source: 2001 AACS.

R 325.25807
Source: 2001 AACS.

PART 9. SURVEILLANCE AND INSPECTIONS

R 325.25901
Source: 2001 AACS.

R 325.25902
Source: 2001 AACS.

R 325.25903
Source: 2001 AACS.

R 325.25904
Source: 2001 AACS.

R 325.25905
Source: 2001 AACS.

R 325.25906
Source: 2001 AACS.

R 325.25907
Source: 2001 AACS.

R 325.25908
Source: 2001 AACS.

R 325.25909
Source: 2001 AACS.

R 325.25910
Source: 2001 AACS.

PART 10. VENTILATION

R 325.26001
Source: 2001 AACS.

R 325.26002
Source: 2001 AACS.

R 325.26003
Source: 2001 AACS.

R 325.26004
Source: 2001 AACS.

R 325.26005
Source: 2001 AACS.

R 325.26006
Source: 2001 AACS.

R 325.26007
Source: 2001 AACS.

R 325.26008
Source: 2001 AACS.

DEPARTMENT OF CONSUMER AND INDUSTRY SERVICES

OCCUPATIONAL HEALTH STANDARDS

OCCUPATIONAL HEALTH STANDARDS--CARCINOGENS

R 325.35001
Source: 2002 AACS.

R 325.35002
Source: 2002 AACS.

R 325.35003
Source: 2002 AACS.

R 325.35004
Source: 2002 AACS.

R 325.35005
Source: 2002 AACS.

R 325.35006
Source: 2002 AACS.

R 325.35007
Source: 2002 AACS.

R 325.35008
Source: 2002 AACS.

R 325.35009
Source: 2002 AACS.

R 325.35010
Source: 2002 AACS.

R 325.35011
Source: 2002 AACS.

MEDICAL SERVICES AND FIRST AID—GENERAL INDUSTRY

R 325.47201
Source: 2001 AACS.

ILLUMINATION

R 325.47801
Source: 2001 AACS.

EXTINGUISHING SYSTEMS

R 325.48001 Rescission of O.H. rule 3304.
Rule 1. O.H. rule 3304, which was incorporated by reference pursuant to section 14 of 1974 PA 154, MCL

408.1014, is rescinded.
History: 2005 MR 14, Eff. July 22, 2005.

METHYLENEDIANILINE (MDA)

R 325.50051
Source: 1993 AACS.

R 325.50052
Source: 1998-2000 AACS.

R 325.50053
Source: 1993 AACS.

R 325.50054
Source: 1998-2000 AACS.

R 325.50055
Source: 1993 AACS.

R 325.50056
Source: 1993 AACS.

R 325.50057
Source: 1993 AACS.

R 325.50058
Source: 1993 AACS.

R 325.50059
Source: 1993 AACS.

R 325.50060
Source: 1998-2000 AACS.

R 325.50061
Source: 1993 AACS.

R 325.50062
Source: 1993 AACS.

R 325.50063
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R 325.50064
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R 325.50065
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R 325.50066
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R 325.50067
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R 325.50068
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R 325.50069
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R 325.50070
Source: 1993 AACS.

R 325.50071
Source: 1993 AACS.

R 325.50072
Source: 1993 AACS.

R 325.50073
Source: 1993 AACS.

R 325.50074
Source: 1998-2000 AACS.

R 325.50075
Source: 1998-2000 AACS.

R 325.50076
Source: 1998-2000 AACS.

1,3-BUTADIENE

R 325.50091
Source: 1997 AACS.

R 325.50092
Source: 1998-2000 AACS.

COKE OVEN EMISSIONS

R 325.50101
Source: 1998-2000 AACS.

R 325.50102
Source: 1998-2000 AACS.

R 325.50106
Source: 1987 AACS.

R 325.50107
Source: 1987 AACS.

R 325.50108
Source: 1987 AACS.

R 325.50109
Source: 1987 AACS.

R 325.50117
Source: 1998-2000 AACS.

R 325.50118

Source: 1998-2000 AACS.

R 325.50124
Source: 1998-2000 AACS.

R 325.50125
Source: 1998-2000 AACS.

R 325.50136
Source: 1998-2000 AACS.

R 325.50151
Source: 1998-2000 AACS.

PART 501. AGRICULTURAL OPERATIONS

R 325.50171
Source: 2002 AACS.

OCCUPATIONAL HEALTH STANDARDS

PART 2. TUNNELS, SHAFTS, CAISSONS, AND COFFERDAMS

R 325.50201
Source: 1997 AACS.

R 325.50202
Source: 1997 AACS.

R 325.50203
Source: 1997 AACS.

R 325.50204
Source: 1997 AACS.

R 325.50205
Source: 1997 AACS.

R 325.50206
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R 325.50207
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R 325.50208
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R 325.50209
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R 325.50210
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R 325.50211
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R 325.50212
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R 325.50213
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R 325.50214
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R 325.50215
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R 325.50216
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R 325.50217
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R 325.50218
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R 325.50219
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R 325.50220
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R 325.50221
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R 325.50222
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R 325.50223
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R 325.50224
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R 325.50225
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R 325.50226
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R 325.50227
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R 325.50228
Source: 1997 AACS.

R 325.50229
Source: 1997 AACS.

R 325.50230
Source: 1997 AACS.

R 325.50231
Source: 1997 AACS.

DEPARTMENT OF CONSUMER AND INDUSTRY SERVICES

DIRECTOR'S OFFICE

OCCUPATIONAL HEALTH STANDARDS--ABRASIVE BLASTING

R 325.50251
Source: 2001 AACS.

R 325.50252
Source: 2001 AACS.

R 325.50253
Source: 2001 AACS.

R 325.50254
Source: 2001 AACS.

R 325.50255
Source: 2001 AACS.

R 325.50256
Source: 2001 AACS.

R 325.50257
Source: 2001 AACS.

R 325.50258
Source: 2001 AACS.

ILLUMINATION

R 325.50902
Source: 2001 AACS.

R 325.51004
Source: 2001 AACS.

AIR CONTAMINANTS

R 325.51101
Source: 2001 AACS.

R 325.51103
Source: 2001 AACS.

R 325.51104
Source: 2001 AACS.

R 325.51105
Source: 2001 AACS.

R 325.51106
Source: 2001 AACS.

R 325.51107
Source: 1990 AACS.

R 325.51108
Source: 2001 AACS.

ETHYLENE OXIDE

R 325.51151
Source: 1993 AACS.

R 325.51152
Source: 1998-2000 AACS.

R 325.51153
Source: 1993 AACS.

R 325.51154
Source: 1993 AACS.

R 325.51155
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R 325.51156
Source: 1993 AACS.

R 325.51157
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R 325.51158
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R 325.51159
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R 325.51160
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R 325.51161
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R 325.51162
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R 325.51163
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R 325.51164
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R 325.51166
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R 325.51167
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R 325.51169
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R 325.51170
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R 325.51171
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R 325.51172
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R 325.51173
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R 325.51174
Source: 1993 AACS.

R 325.51175
Source: 1988 AACS.

R 325.51176
Source: 1988 AACS.

R 325.51177
Source: 1998-2000 AACS.

ASBESTOS STANDARDS FOR CONSTRUCTION

R 325.51301
Source: 1997 AACS.

R 325.51302
Source: 1998-2000 AACS.

ASBESTOS STANDARDS FOR GENERAL INDUSTRY

R 325.51311
Source: 1997 AACS.

R 325.51312
Source: 1998-2000 AACS.

DEPARTMENT OF CONSUMER AND INDUSTRY SERVICES

DIRECTOR'S OFFICE

OCCUPATIONAL HEALTH STANDARDS--VINYL CHLORIDE

R 325.51401
Source: 1998-2000 AACS.

R 325.51402
Source: 1998-2000 AACS.

R 325.51403

Source: 1998-2000 AACS.

R 325.51404
Source: 1998-2000 AACS.

R 325.51405
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R 325.51406
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R 325.51407
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R 325.51408
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R 325.51409
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R 325.51410
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R 325.51411
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R 325.51412
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R 325.51413
Source: 1998-2000 AACS.

R 325.51414
Source: 1998-2000 AACS.

FORMALDEHYDE

R 325.51451
Source: 1990 AACS.

R 325.51452
Source: 1998-2000 AACS.

R 325.51453
Source: 1993 AACS.

R 325.51454
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R 325.51455
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R 325.51456
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R 325.51457
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R 325.51458
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R 325.51459
Source: 1990 AACS.

R 325.51460
Source: 1998-2000 AACS.

R 325.51461
Source: 1998-2000 AACS.

R 325.51462
Source: 1998-2000 AACS.

R 325.51463
Source: 1990 AACS.

R 325.51464
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R 325.51465
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R 325.51466
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R 325.51467
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R 325.51468
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R 325.51469
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R 325.51470
Source: 1998-2000 AACS.

R 325.51471
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R 325.51472
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R 325.51473
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R 325.51474
Source: 1990 AACS.

R 325.51475
Source: 1993 AACS.

R 325.51476
Source: 1998-2000 AACS.

R 325.51477
Source: 1998-2000 AACS.

ACRYLONITRILE (AN)

R 325.51501
Source: 1980 AACS.

R 325.51502
Source: 1998-2000 AACS.

R 325.51503
Source: 1980 AACS.

R 325.51504
Source: 1980 AACS.

R 325.51505
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R 325.51506
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R 325.51507
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R 325.51508
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R 325.51509
Source: 1998-2000 AACS.

R 325.51510
Source: 1980 AACS.

R 325.51511
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R 325.51512
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R 325.51513
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R 325.51514
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R 325.51515
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R 325.51516
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R 325.51517
Source: 1998-2000 AACS.

R 325.51518
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R 325.51519
Source: 1998-2000 AACS.

R 325.51520
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R 325.51523
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R 325.51524
Source: 1993 AACS.

R 325.51525
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R 325.51526
Source: 1980 AACS.

R 325.51527
Source: 1998-2000 AACS.

INORGANIC ARSENIC (AS)

R 325.51601
Source: 1993 AACS.

R 325.51602
Source: 1998-2000 AACS.

R 325.51603
Source: 1980 AACS.

R 325.51604
Source: 1980 AACS.

R 325.51605
Source: 1980 AACS.

R 325.51606
Source: 1993 AACS.

R 325.51607
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R 325.51608
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R 325.51609
Source: 1980 AACS.

R 325.51610
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R 325.51611
Source: 1998-2000 AACS.

R 325.51612
Source: 1998-2000 AACS.

R 325.51613
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R 325.51614
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R 325.51615
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R 325.51616
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R 325.51617
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R 325.51619
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R 325.51626
Source: 1980 AACS.

R 325.51627
Source: 1980 AACS.

R 325.51628
Source: 1998-2000 AACS.

DEPARTMENT OF CONSUMER AND INDUSTRY SERVICES

OCCUPATIONAL HEALTH STANDARDS COMMISSION

METHYLENE CHLORIDE

R 325.51651
Source: 1998-2000 AACS.

R 325.51652
Source: 1998-2000 AACS.

CADMIUM

R 325.51851
Source: 1998-2000 AACS.

R 325.51852
Source: 1998-2000 AACS.

R 325.51853
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R 325.51883
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R 325.51884
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R 325.51885
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R 325.51886
Source: 1998-2000 AACS.

LEAD

R 325.51901
Source: 1998-2000 AACS.

R 325.51902
Source: 1998-2000 AACS.

R 325.51903
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R 325.51904
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R 325.51905
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R 325.51906
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R 325.51907
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R 325.51908
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R 325.51909
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R 325.51910
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R 325.51911
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R 325.51912
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R 325.51913
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R 325.51914
Source: 1998-2000 AACS.

R 325.51915
Source: 1984 AACS.

R 325.51916
Source: 1998-2000 AACS.

R 325.51916a
Source: 1984 AACS.

R 325.51916b
Source: 1984 AACS.

R 325.51917
Source: 1998-2000 AACS.

R 325.51918
Source: 1998-2000 AACS.

R 325.51919
Source: 1998-2000 AACS.

R 325.51920
Source: 1998-2000 AACS.

R 325.51921
Source: 1998-2000 AACS.

R 325.51922
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R 325.51923
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R 325.51924
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R 325.51927
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R 325.51928
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R 325.51929
Source: 1998-2000 AACS.

R 325.51930
Source: 1998-2000 AACS.

R 325.51931
Source: 1988 AACS.

R 325.51931a
Source: 1998-2000 AACS.

R 325.51932
Source: 1998-2000 AACS.

R 325.51933
Source: 1988 AACS.

R 325.51934
Source: 1998-2000 AACS.

R 325.51935
Source: 1981 AACS.

R 325.51936
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R 325.51937
Source: 1981 AACS.

R 325.51938
Source: 1981 AACS.

R 325.51938a
Source: 1988 AACS.

R 325.51939
Source: 1981 AACS.

R 325.51940
Source: 1981 AACS.

R 325.51941
Source: 1984 AACS.

R 325.51942
Source: 1981 AACS.

R 325.51943
Source: 1998-2000 AACS.

R 325.51944
Source: 1981 AACS.

R 325.51945
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R 325.51946
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R 325.51947
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R 325.51948
Source: 1981 AACS.

R 325.51949
Source: 1998-2000 AACS.

R 325.51950
Source: 1981 AACS.

R 325.51950a
Source: 1984 AACS.

R 325.51950b
Source: 1984 AACS.

R 325.51951
Source: 1981 AACS.

R 325.51952
Source: 1981 AACS.

R 325.51953
Source: 1981 AACS.

R 325.51954
Source: 1981 AACS.

R 325.51955
Source: 1981 AACS.

R 325.51956
Source: 1981 AACS.

R 325.51957
Source: 1981 AACS.

R 325.51958
Source: 1998-2000 AACS.

LEAD EXPOSURE IN CONSTRUCTION

R 325.51991
Source: 1993 AACS.

R 325.51992
Source: 1998-2000 AACS.

PART 520. VENTILATION CONTROL

R 325.52001 Scope; applicability; replacement of O.H. rules.
Rule 1. (1) These rules apply to all processes and places of employment.
(2) These rules replace O.H. rule 3101.
History: 2005 MR 7, Eff. Apr. 12, 2005.

R 325.52002 Reference of standards.
Rule 2. The following Michigan occupational safety and health standards are referenced in these rules. Up to 5 copies of these standards may be obtained at no charge from the Michigan Department of Labor and Economic Growth, MIOSHA Standards Section, 7150 Harris Drive, P.O. Box 30643, Lansing, Michigan, 48909-8143 or via the internet at web-site: www.michigan.gov/mioshastandards. For quantities greater than 5, the cost, at the time of adoption of these rules, is 4 cents per page.
(a) Part 301. Air Contaminants, R 325.51101 et seq.
(b) Part 526. Open Surface Tanks, Rule 3220 et seq.
(c) Part 528. Spray Finishing Operations, Rule 3235 et seq.
History: 2005 MR 7, Eff. Apr. 12, 2005.

R 325.52003 Definitions.
Rule 3. As used in these rules:
(a) "Aerosol" means particulate matter suspended in air.
(b) "Contaminant" means an airborne material capable of causing occupational disease or significant physiological disturbances to a person, and includes but is not limited to, the substances listed in Part 301. Air Contaminants, R 325.51101 et seq.
(c) "Control" means the limitation of worker exposure to contaminant levels not exceeding the exposure limits as set forth in Part 301. Air Contaminants, R 325.51101 et seq.
(d) "Controlled process" means an arrangement of equipment to control the contaminant by means of suitable design measures.

(e) "Enclosure" means a room, booth, or exhaust hood that confines contaminants at their sources.
(f) "Gas" means a normally formless fluid which occupies a space or enclosure and which can be changed to the liquid or solid state by the effect of increased pressure or decreased temperature, or both.
(g) "General ventilation" means the supply and removal of air from a space to dilute or remove contaminants.
(h) "Local exhaust ventilation system" means an arrangement of exhaust hoods, ducts, and fans that removes air to control a contaminant at its source.
(i) "Mg/m^3" means milligrams of particulate per cubic meter of air.
(j) "Mppcf" means millions of particulates per cubic foot of air based on impinger samples counted by light field microscopic techniques.
(k) "Ppm" means parts of vapor or gas per million parts of air by volume at 25 degrees Celsius and 760 millimeters of mercury pressure.
(l) "Permissible exposure limits" means the exposure limits as set forth in Part 301. Air Contaminants, R 325.51101 et seq.
(m) "Process space" means a tunnel, process equipment, shaft, or enclosed space.
(n) "Source" means a process or equipment which releases a contaminant into the air in concentrations exceeding the permissible exposure limits.
(o) "Supply ventilation system" means an arrangement of inlet openings or equipment to introduce outside air into the working environment.
(p) "Vapor" means the gaseous state of a substance.
History: 2005 MR 7, Eff. Apr. 12, 2005.

R 325.52004 Control methods for enclosures and controlled processes.
Rule 4. (1) An employer shall ensure that an enclosure is provided at a stationary source unless the omission of the enclosure does not impair control.
(2) A controlled process shall be designed and regulated to prevent the creation of a hazard to health or life. If the director determines that there may be an immediate danger to health or life due to the failure of the process design or regulatory device, then he or she may require that the process fail-safe in such manner to avert the hazard.
History: 2005 MR 7, Eff. Apr. 12, 2005.

R 325.52005 Supply ventilation systems.
Rule 5. (1) A supply ventilation system shall be provided to ensure a flow of air into the working environment to equally replace the volume of air exhausted.
(2) A mechanical air supply system shall be provided if its absence will result in building negative pressures sufficient to cause backdrafting of vents from fuel-fired equipment or ineffective control.
(3) Mechanical air supply volumes shall be heated to maintain a minimum air temperature of 65 degrees Fahrenheit measured at the point of air discharge to the space. Exceptions to this requirement are refrigerated storage rooms, special process rooms, and similar locations where low air temperatures are essential to the preservation of the product or service, or, if in the opinion of the director, a lower air temperature will not be harmful to the health of the persons affected.
(4) Make-up air for spray-finishing operations shall be as prescribed in Part 528. Spray-Finishing Operations, O.H. rule 3235(9) Make-up air.
(5) Make-up air for open surface tanks shall be as prescribed in Part 526. Open-surface Tanks, O.H. rule 3220(8)(c).
History: 2005 MR 7, Eff. Apr. 12, 2005.

R 325.52006 Direct-fired air heaters.
Rule 6. (1) A direct-fired air heater, wherein combustion products are released in the supply air stream, may be installed in buildings of industrial occupancy, garages, laundries, and commercial kitchens. They shall not be installed in offices, schools, hospitals, and places of public assembly.
(2) A direct-fired air heater shall have an inlet duct connected directly to the out-of-doors. Room air shall not be circulated across the burner.
(3) A direct-fired air heater shall deliver air which contains not more than 10 ppm of carbon monoxide and is free from odors of combustion products. Permissible concentrations of other contaminants in the delivered air may be established by the director pursuant to their permissible exposure limits and the degree of exposure to a person.

(4) The air volume supplied to the building by a direct-fired air heater shall not exceed 110% of the total air volume exhausted. The director may require interlocking of a heater control system with an exhaust ventilation system if necessary to ensure that the exhaust systems are operating.
(5) A direct-fired air heater shall have both of the following:
(a) A pre-ignition purge of fresh air.
(b) A positive fuel supply closure in the event of fuel supply failure, ignition failure, flame failure, power failure or interruption, or air flow reduction below 50% of its rated capacity.
History: 2005 MR 7, Eff. Apr. 12, 2005.

R 325.52007 Exhaust ventilation systems.
Rule 7. The minimum rate of exhaust ventilation for places of manufacturing, processing, assembling, maintenance and repair, or storage of material shall be 1 cubic foot of air per minute per square foot of floor area. This amount of exhaust ventilation may be provided by local exhaust, general exhaust, or both. The director may permit a variance if contaminant control is accomplished at a lesser rate of ventilation.
History: 2005 MR 7, Eff. Apr. 12, 2005.

R 325.52008 Local exhaust ventilation.
Rule 8. (1) Local exhaust ventilation shall be provided at all stationary sources. The director may allow a variance from this subrule if control is accomplished with general ventilation.
(2) If a local exhaust system is used, then the exhaust air volume shall create an indraft air volume at an enclosure, hood, duct, or fan sufficient to control the contaminant.
(3) A local exhaust system shall be designed to capture and control the contaminant. Distribution of exhaust air between various exhaust points may be accomplished by balanced duct design. If balancing gates are used, they shall be locked permanently in place after final adjustment.
(4) The design and construction of a local exhaust ventilation system shall be adequate for the contaminant and conditions of service. A listing of practical ventilation texts and references shall be available from the director upon request. Technical information and experience regarding specific contaminants and control measures may be obtained from the director.
History: 2005 MR 7, Eff. Apr. 12, 2005.

R 325.52009 General ventilation systems.
Rule 9. A general ventilation system may be used for contaminant control. The ventilation air volume shall be sufficient to dilute the airborne contaminant to levels not exceeding the permissible exposure limits.
History: 2005 MR 7, Eff. Apr. 12, 2005.

R 325.52010 Exhaust system discharge locations.
Rule 10. The discharge locations of local exhaust or general exhaust systems shall not permit exhausted air to re-enter a workroom or other buildings directly, or indirectly, through air supply systems without substantial dilution.
History: 2005 MR 7, Eff. Apr. 12, 2005.

R 325.52011 Recirculation of air from exhaust systems.
Rule 11. (1) The recirculation of air containing a contaminant whose permissible exposure limit is equal to or exceeds 1000 ppm, 15 mg/m^3, or 50 mppcf, shall be permitted if the exhaust ventilation system is equipped with an air-cleaning device capable of reducing the contaminant concentrations to 10% or less of their permissible exposure limits in the returned air.
(2) The director may allow the recirculation of air containing a contaminant whose permissible exposure limit is less than 1000 ppm, 15 mg/m^3, or 50 mppcf, if the toxicity of the contaminant and the degree of air cleaning to be achieved create an environment which will not impair the health of the workers, and if the contaminant concentrations in the return air shall not exceed 10% of its permissible exposure limits.
(3) A recirculation system shall include an alternate air duct connection to discharge the return air outside of the building if necessary to protect the workers' health.
(4) Spray-finishing operations using flammable and combustible materials shall be as prescribed in Part 528. Spray-Finishing Operations, O.H. rule 3235(6)(j) Air exhaust.
History: 2005 MR 7, Eff. Apr. 12, 2005.

R 325.52012 Air pollution control.
Rule 12. A local exhaust and general exhaust ventilation system shall comply with rules adopted by the Michigan Department of Environmental Quality, R 336.1101 to R 336.1910.
History: 2005 MR 7, Eff. Apr. 12, 2005.

HAZARDOUS WASTE OPERATIONS AND EMERGENCY RESPONSE

R 325.52101
Source: 1991 AACS.

R 325.52102
Source: 1998-2000 AACS.

R 325.52103
Source: 1998-2000 AACS.

R 325.52104
Source: 1991 AACS.

R 325.52105
Source: 1991 AACS.

R 325.52106
Source: 1991 AACS.

R 325.52107
Source: 1991 AACS.

R 325.52108
Source: 1991 AACS.

R 325.52109
Source: 1991 AACS.

R 325.52110
Source: 1991 AACS.

R 325.52111
Source: 1991 AACS.

R 325.52112
Source: 1991 AACS.

R 325.52113
Source: 1998-2000 AACS.

R 325.52114
Source: 1998-2000 AACS.

R 325.52115
Source: 1991 AACS.

R 325.52116
Source: 1991 AACS.

R 325.52117
Source: 1991 AACS.

R 325.52118
Source: 1998-2000 AACS.

R 325.52119
Source: 1991 AACS.

R 325.52120
Source: 1991 AACS.

R 325.52121
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R 325.52122
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R 325.52123
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R 325.52124
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R 325.52125
Source: 1998-2000 AACS.

R 325.52126
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R 325.52127
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R 325.52128
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R 325.52129
Source: 1998-2000 AACS.

R 325.52130
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R 325.52131
Source: 1998-2000 AACS.

R 325.52132
Source: 1991 AACS.

R 325.52133
Source: 1991 AACS.

R 325.52134
Source: 1991 AACS.

R 325.52135
Source: 1998-2000 AACS.

R 325.52136
Source: 1991 AACS.

R 325.52137
Source: 1998-2000 AACS.

OCCUPATIONAL HEALTH STANDARDS

R 325.52201
Source: 2001 AACS.

R 325.52401
Source: 2001 AACS.

PART 525. GRINDING, POLISHING, AND BUFFING OPERATIONS

R 325.52501
Source: 2003 AACS.

R 325.52502
Source: 2003 AACS.

R 325.52503
Source: 2003 AACS.

R 325.52504
Source: 2003 AACS.

R 325.52505
Source: 2003 AACS.

R 325.52506
Source: 2003 AACS.

R 325.52701
Source: 2001 AACS.

PERSONAL PROTECTIVE EQUIPMENT

R 325.60001
Source: 1998-2000 AACS.

R 325.60002
Source: 1995 AACS.

R 325.60003
Source: 1995 AACS.

R 325.60004
Source: 1995 AACS.

R 325.60005
Source: 1998-2000 AACS.

R 325.60006
Source: 1995 AACS.

R 325.60007
Source: 1998-2000 AACS.

R 325.60008

Source: 1998-2000 AACS.

R 325.60009
Source: 1998-2000 AACS.

R 325.60010
Source: 1995 AACS.

R 325.60011
Source: 1995 AACS.

R 325.60012
Source: 1995 AACS.

R 325.60013
Source: 1998-2000 AACS.

USE OF RESPIRATORS IN DANGEROUS ATMOSPHERES

R 325.60022
Source: 1998-2000 AACS.

RESPIRATORY PROTECTION

R 325.60051
Source: 1998-2000 AACS.

R 325.60052 Adoption by reference of federal standard.
Rule 2. (1) The federal occupational safety and health administration's regulations on respiratory protection promulgated by the United States department of labor and codified at 29 C.F.R. §1910.134, respiratory protection, January 8, 1998, and corrections appearing in the Federal Register on pp. 20098 to 20099, April 23, 1998 and on pp. 46993, August 4, 2004, are adopted by reference in these rules as of the effective date of these rules.
(2) The adopted federal regulations shall have the same force and effect as a rule promulgated under 1974 PA 154, MCL 408.1001.
(3) The adopted federal regulations are available without cost as of the time of adoption of these rules from the United States Department of Labor, OSHA, 801 South Waverly, Room 306, Lansing, Michigan 48917 or via the internet at website: www.osha.gov, or from the Michigan Department of Labor and Economic Growth, MIOSHA Standards Section, P.O. Box 30643, Lansing, Michigan 48909-8143 or via the internet at website: www.michigan.gov/mioshastandards. For quantities greater than 5, the cost, as of the time of adoption of these rules, is 4 cents per page.
History: 1999 MR 4, Eff. Apr. 21, 1999; 2005 MR 7, Eff. Apr. 12, 2005.

OCCUPATIONAL NOISE EXPOSURE

R 325.60101
Source: 1986 AACS.

R 325.60102
Source: 1986 AACS.

R 325.60103
Source: 1986 AACS.

R 325.60104
Source: 1986 AACS.

R 325.60105
Source: 1986 AACS.

R 325.60106
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R 325.60107
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R 325.60121
Source: 1993 AACS.

R 325.60122
Source: 1993 AACS.

R 325.60123
Source: 1986 AACS.

R 325.60124
Source: 1986 AACS.

R 325.60125
Source: 1993 AACS.

R 325.60126
Source: 1986 AACS.

R 325.60127
Source: 1993 AACS.

R 325.60128
Source: 1993 AACS.

DEPARTMENT OF CONSUMER AND INDUSTRY SERVICES

DIRECTOR'S OFFICE

OCCUPATIONAL HEALTH STANDARDS--NOISE EXPOSURE FOR CONSTRUCTION

R 325.60131
Source: 1998-2000 AACS.

AIR CONTAMINANTS FOR CONSTRUCTION

R 325.60151
Source: 2002 AACS.

R 325.60152
Source: 2002 AACS.

R 325.60153
Source: 2002 AACS.

R 325.60154
Source: 2002 AACS.

R 325.60155
Source: 2002 AACS.

R 325.60156
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R 325.60157
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R 325.60158
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R 325.60159
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R 325.60160
Source: 2002 AACS.

R 325.60161
Source: 2002 AACS.

OCCUPATIONAL HEALTH STANDARDS COMMISSION

PART 382. NONIONIZING RADIATION

R 325.60701
Source: 2002 AACS.

R 325.60702
Source: 2002 AACS.

R 325.60703
Source: 2002 AACS.

R 325.60704
Source: 2002 AACS.

AGRICULTURAL FIELD SANITATION

R 325.61751
Source: 1997 AACS.

R 325.61752
Source: 1997 AACS.

R 325.61753
Source: 1997 AACS.

R 325.61754
Source: 1997 AACS.

R 325.61755
Source: 1997 AACS.

R 325.61756
Source: 1997 AACS.

R 325.61757
Source: 1997 AACS.

OH STANDARD RULE 6610 - MEDICAL SERVICES AND FIRST AID

R 325.66201
Source: 2002 AACS.

UNDERGROUND CONSTRUCTION, CAISSONS, COFFERDAMS, AND COMPRESSED AIR

R 325.62991
Source: 2004 AACS.

R 325.62992
Source: 2004 AACS.

R 325.62993
Source: 1998-2000 AACS.

R 325.62994
Source: 2004 AACS.

R 325.62995
Source: 2004 AACS.

R 325.62996
Source: 2004 AACS.

PERMIT-REQUIRED CONFINED SPACES

R 325.63001
Source: 1998-2000 AACS.

R 325.63002
Source: 1998-2000 AACS.

R 325.63049
Source: 1998-2000 AACS.

DEPARTMENT OF LABOR AND ECONOMIC GROWTH

DIRECTOR'S OFFICE

OCCUPATIONAL HEALTH STANDARDS

R 325.66401 Rescission of O.H. rule 6701.
Rule 1. O.H. rule 6701 which was incorporated by reference pursuant to section 14 of 1974 PA 154, MCL 408.1014, is rescinded.
History: 2005 MR 12, Eff. June 17, 2005.

PART 681. RADIATION IN CONSTRUCTION: IONIZING AND NONIONIZING

R 325.68101 Ionizing radiation.
Rule 1. (1) In construction and related activities involving the use of sources of ionizing radiation, the pertinent provisions of the Nuclear Regulatory Commission Standards for Protection Against Radiation (10 CFR Part 20), relating to protection against occupational radiation exposure, shall apply.
(2) Any activity which involves the use of radioactive materials or X-rays, whether or not under license from the Nuclear Regulatory Commission, shall be performed by competent persons specially trained in the proper and safe operation of such equipment. In the case of materials used under Commission license, only persons actually licensed, or competent persons under direction and supervision of the licensee, shall perform such work.
(3) This rule replaces O.H. rule 6265.
History: 2005 MR 19, Eff. Oct. 7, 2005.

R 325.68102 Nonionizing radiation; laser equipment.
Rule 2. (1) Only qualified and trained employees shall be assigned to install, adjust, and operate laser equipment.
(2) Proof of qualification of the laser equipment operator shall be available and in possession of the operator at all times.
(3) Employees, when working in areas in which a potential exposure to direct or reflected laser light greater than 0.005 watts (5 milliwatts) exists, shall be provided with the following antilaser eye protection devices:
(a) Employees whose occupation or assignment requires exposure to laser beams shall be furnished suitable laser safety goggles which will protect for the specific wavelength of the laser and be of optical density

(O.D.) adequate for the energy involved. Table E-3 lists the maximum power or energy density for which adequate protection is afforded by glasses of optical densities from 5 to 8.

TABLE E-3
SELECTING LASER SAFETY GLASS

Intensity, CW Maximum Power Density (watts/cm^2)	Attenuation	
	Optical Density (O.D.)	Attenuation Factor
10^{-2}	5	10^5
10^{-1}	6	10^6
1.0	7	10^7
10.0	8	10^8

Output levels falling between lines in this table shall require the higher optical density.
(b) All protective goggles shall bear a label identifying the following data:
(i) Laser wavelengths for which use is intended.
(ii) Optical density of those wavelengths.
(iii) Visible light transmission.
(4) Areas in which lasers are used shall be posted with standard laser warning placards.
(5) Beam shutters or caps shall be utilized, or the laser turned off, when laser transmission is not actually required. When the laser is left unattended for a substantial period of time, such as during lunch hour, overnight, or at change of shifts, the laser shall be turned off.
(6) Only mechanical or electronic means shall be used as a detector for guiding the internal alignment of the laser.
(7) The laser beam shall not be directed at employees.
(8) When it is raining or snowing, or when there is dust or fog in the air, the operation of laser systems shall be prohibited where practicable; in any event, employees shall be kept out of range of the area of source and target during such weather conditions.
(9) Laser equipment shall bear a label to indicate maximum output.
(10) Employees shall not be exposed to light intensities above any of the following:
(a) Direct staring: 1 micro-watt per square centimeter.
(b) Incidental observing: 1 milliwatt per square centimeter.
(c) Diffused reflected light: 2 1/2 watts per square centimeter.
(11) Laser unit in operation shall be set up above the heads of the employees, when possible.
(12) Employees shall not be exposed to microwave power densities in excess of 10 milliwatts per square centimeter.
(13) This rule replaces O.H. rule 6270.
History: 2005 MR 19, Eff. Oct. 7, 2005.

BLOODBORNE INFECTIOUS DISEASES

R 325.70001
Source: 2001 AACS.

R 325.70002
Source: 2001 AACS.

R 325.70003
Source: 1993 AACS.

R 325.70004
Source: 2001 AACS.

R 325.70005
Source: 1996 AACS.

R 325.70006
Source: 1993 AACS.

R 325.70007
Source: 1996 AACS.

R 325.70008
Source: 1996 AACS.

R 325.70009
Source: 1996 AACS.

R 325.70010
Source: 1993 AACS.

R 325.70011
Source: 1993 AACS.

R 325.70012
Source: 1996 AACS.

R 325.70013
Source: 1996 AACS.

R 325.70014
Source: 1993 AACS.

R 325.70015
Source: 2001 AACS.

R 325.70016
Source: 1996 AACS.

R 325.70017
Source: 1996 AACS.

R 325.70018
Source: 1996 AACS.

HAZARDOUS WORK IN LABORATORIES

PART 431. HAZARDOUS WORK IN LABORATORIES

R 325.70101
Source: 2003 AACS.

R 325.70102
Source: 2003 AACS.

R 325.70103
Source: 2003 AACS.

R 325.70104
Source: 2003 AACS.

R 325.70105
Source: 2003 AACS.

R 325.70106
Source: 2003 AACS.

R 325.70107
Source: 2003 AACS.

R 325.70108
Source: 2003 AACS.

R 325.70109
Source: 2003 AACS.

R 325.70110
Source: 2003 AACS.

R 325.70111
Source: 2003 AACS.

R 325.70112
Source: 2003 AACS.

R 325.70113
Source: 2003 AACS.

R 325.70114
Source: 2003 AACS.

DEPARTMENT OF CONSUMER AND INDUSTRY SERVICES

DIRECTOR'S OFFICE

OCCUPATIONAL HEALTH STANDARDS

R 325.70251
Source: 2001 AACS.

HAZARD COMMUNICATION

R 325.77001
Source: 1995 AACS.

R 325.77002
Source: 1995 AACS.

R 325.77003
Source: 1995 AACS.

BENZENE

R 325.77101
Source: 2002 AACS.

R 325.77102

Source: 2001 AACS.

R 325.77103
Source: 1989 AACS.

R 325.77104
Source: 1989 AACS.

R 325.77105
Source: 2001 AACS.

R 325.77106
Source: 1989 AACS.

R 325.77107
Source: 2001 AACS.

R 325.77108
Source: 2001 AACS.

R 325.77109
Source: 2001 AACS.

R 325.77110
Source: 2001 AACS.

R 325.77111
Source: 2001 AACS.

R 325.77113
Source: 2001 AACS.

R 325.77114
Source: 2001 AACS.

R 325.77115
Source: 2001 AACS.

DEPARTMENT OF COMMUNITY HEALTH

HEALTH LEGISLATION AND POLICY DEVELOPMENT

LEAD HAZARD CONTROL

PART 1. GENERAL PROVISIONS

R 325.99101 Scope; application; rescission.
Rule 101. (1) These rules apply to all activities defined by sections 5451 to 5477 of 1978 PA 368, MCL 333.5451 to 333.5477 and referred to in these rules as the "act."
(2) These rules provide specifications applicable to lead-based paint activities for all of the following:
(a) Training program requirements
(b) Certification requirements.
(c) Work practice standards.
(d) Notification requirements.
(e) Enforcement actions.
(3) These rules replace R 325.9901 to R 325.9925, which are hereby rescinded.
History: 2005 MR 7, Eff. Feb. 2, 2005.

R 325.99102 Definitions.
Rule 102. (1) As used in these rules:
(a)"EBL environmental investigation" means both of the following:
(i) A study of the living environment of 1 or more children 6 years of age or less with an elevated blood lead level performed by an EBL investigator to identify causative lead exposures.
(ii) The provision of a report by the EBL investigator explaining the results of the study and options for remediation of exposures.
(b) *EBL* "investigator" means a certified risk assessor who has been endorsed by the department to conduct EBL environmental investigations.
(c) "Lead hazard control activity" means a measure or set of measures which are designed or performed specifically to reduce or eliminate lead-based paint hazards in target housing and child-occupied facilities. Lead hazard control activity includes, but is not limited to, abatement, interim controls and clearance examinations.
(d) "Renovation" means the modification of an existing residential dwelling, or portion thereof, that results in the disturbance of painted surfaces, unless the activity is performed as part of an abatement as defined in the act. Renovation includes, but is not limited to, the removal or modification of building components, surface preparation of painted surfaces, and window or door replacement to improve structural or operational integrity.
(2) Unless the context dictates otherwise, terms defined in sections 5453 to 5460 of the act have the same meanings when used in these rules.
History: 2005 MR 7, Eff. Feb. 2, 2005.

R 325.99103 Recordkeeping.
Rule 103. (1) A person who is certified by the department under the act and these rules shall maintain all records required by the act and these rules for not less than 3 years.
(2) A certified person or individual who prepares a report or plan required by these rules shall maintain the report or plan for not less than 3 years, and shall provide copies of the report or plan not later than 20 business days after completion of the activity for which the report or plan was prepared to both of the following persons:
(a) The building owner.
(b)The person who contracted for the person's or individual's services, if different than the owner.
(3) A training program shall maintain the records required by these rules for not less than 3½ years at the address specified on the training program accreditation application.
History: 2005 MR 7, Eff. Feb. 2, 2005.

R 325.99104 Enforcement actions.
Rule 104. (1) Any person who violates the act or these rules shall be subject to 1 or more of the following enforcement actions, as determined by the department:
(a) Notice of Noncompliance.
(b) Citation.
(c) Denial of certification or accreditation.
(d) Suspension of certification or accreditation by cease operations order.
(e) Summary suspension of certification or accreditation.
(f) Revocation of certification or accreditation.
(g) Criminal sanction in accordance with section 5477 of the act.
(h) Administrative fines.
(2) The department shall consider the circumstance, extent, probability of harm, and repetitive nature of the violation to determine the degree and severity of enforcement actions taken, including administrative fines.
History: 2005 MR 7, Eff. Feb. 2, 2005.

PART 2. TRAINING PROGRAMS

R 325.99201 Training program accreditation; disciplines; training manager; principal instructor.
Rule 201. (1) A person may seek accreditation for a training program to offer lead-based paint training courses leading to certification of individuals pursuant to requirements in the act and these rules.
(2) A person seeking accreditation for a training program shall submit a written application to the department containing all of the following:
(a) If the applicant is a sole proprietorship or corporation, its "doing business as" or corporate identification

number.
(b) The name of each principal position, partner, shareholder, member, or owner.
(c) The training program's name, address, and telephone number.
(d) A statement signed by the training program manager certifying that the training program meets the requirements established by the act and these rules.
(e) A copy of the quality control plan as defined in R 325.99204.
(f) The fee required by the act and these rules.
(g) A sample of the training completion certificate required by R 325.99202.
(3) A training program shall meet all of the following requirements in order to become accredited to offer courses in lead-based paint activities:
(a) Employ a training manager who has demonstrated experience, education, or training in the construction industry and has at least 1 of the following:
(i) Not less than 2 years of experience, education, or training in teaching workers or adults.
(ii) A bachelor's or graduate degree in any of the following:
(A) Building construction technology.
(B) Engineering.
(C) Industrial hygiene.
(D) Safety.
(E) Public health.
(F) Education.
(G) Business administration or program management.
(H) A field related to any of the areas specified in this paragraph.
(iii) Two years of experience in managing a training program specializing in environmental hazards.
(b) Provide that the training manager described in subdivision (a) of this subrule designate a qualified principal instructor for each course who shall possess all of the following qualifications:
(i) Demonstrated experience, education, or training in teaching workers or adults.
(ii) Successful completion of the training course which has been accredited by EPA or EPA-authorized state or tribe, which they intend to instruct.
(iii) Demonstrated experience, education, or training in any of the following:
(A) Lead or asbestos abatement.
(B) Painting.
(C) Carpentry.
(D) Renovation.
(E) Remodeling.
(F) Occupational safety and health.
(G) Industrial hygiene.
(c) Provide that the principal instructor described in subdivision (b) of this subrule be responsible for the organization of the course and oversight of the teaching of all course material. A training manager may designate guest instructors as needed to provide instruction specific to the lecture, hands-on activities, or work practice components of a course.
(4) The following documents are recognized by the department as evidence that a training manager or a principal instructor has the education, work experience, training requirements, or demonstrated experience specifically listed in these rules, which documentation is not required to be submitted with the accreditation application but, if not submitted, shall be retained by the training program as required by the recordkeeping requirements of these rules:
(a) An official academic transcript or diploma as evidence of meeting the education requirements.
(b) A resume, letter of reference, or documentation of work experience, as evidence of meeting the work requirements.
(c) A certificate from a train-the-trainer course or a lead-specific training course, or both, as evidence of meeting training requirements.
(5) A person may seek accreditation for a training program to offer 1 or more of the following courses for lead-based paint activities:
(a) Core lead basics.
(b) Inspector.
(c) Risk assessor.
(d) Supervisor.

(e) Worker.
(f) Project designer.
(g) Clearance technician.
(6) A person may also seek accreditation for a training program to offer refresher courses for each of the lead-based paint training activities described in subrule (5), of this rule except for core lead basics.
(7) A person seeking accreditation for a training course under subrule (5) of this rule shall submit a written application to the department containing all of the following:
(a) The name of the course for which accreditation is being sought.
(b) A copy of the student and instructor manuals, handouts, and other materials to be used for each course.
(c) A copy of the course agenda for each course, including the length of time spent on each topic.
(d) A description of the facilities and equipment to be used for lecture and hands-on training.
(e) A description of the course examination, including blueprint, length, format, and passing score.
(f) A description of the activities and procedures that will be used for conducting the hands-on skills assessment for each course.
(g) A course outline describing the location within the course materials of each topic required by these rules.
(h) The fee required by the act.
History: 2005 MR 7, Eff. Feb. 2, 2005.

R 325.99202 Training program requirements; facilities; course test; skills assessment; course certificate; audit by the department.
Rule 202. (1) A training program accredited under section 5462 of the act shall ensure the availability of, and provide adequate facilities for, the delivery of the lecture, course test, hands-on training and assessment activities including, but not limited to, providing training equipment that reflects current work practices and maintaining or updating the equipment and facilities of the training program, as needed.
(2) For each course offered, except the core lead basics course, the training program shall conduct a course test at the completion of the course and, if applicable, a hands-on skills assessment. Each individual enrolled in the training program shall successfully complete the hands-on skills assessment, if conducted for that course, and receive a passing score on the course test to pass a course.
(3) The training manager shall maintain the validity and integrity of the hands-on skills assessment to ensure that it accurately evaluates the trainees' performance of the work practices and procedures associated with the course topics contained in these rules, and the course test to ensure that it accurately evaluates the trainees' knowledge and retention of the course topics.
(4) The training program's course test shall be developed in accordance with the test blueprint submitted with the training program accreditation application.
(5) The training program shall issue course completion certificates to each individual who passes the training course. The course completion certificate shall include all of the following:
(a) The name and address of the individual, along with a unique identification number.
(b) The name of the particular course that the individual passed.
(c) Dates of course completion and test passage.
(d) Expiration date of course certificate (3 years from course completion).
(e) The name, address, and telephone number of the training program.
(f) Expiration date of the individual's eligibility to take the third-party examination (6 months from course completion).
(6) The training manager shall allow the department to audit the training program and courses to verify the contents of the application for accreditation.
History: 2005 MR 7, Eff. Feb. 2, 2005.

R 325.99203 Training records.
Rule 203. (1) An accredited training program shall maintain, and make available to the department, upon request, all of the following records:
(a) Each document that demonstrates the qualification of a training manager or a principal instructor.
(b) Current curriculum and course materials and documents reflecting changes made to these materials.
(c) The course test blueprints.
(d) Information regarding how the hands-on skills assessment is conducted including, but not limited to, all of the following:
(i) The person conducting the hands-on skills assessment.

(ii) The method of grading the hands-on skills.
(iii) A description of the facilities used.
(iv) The pass/fail determination.
(e) The quality control plan.
(f) Any other material that was submitted to the department as part of the program's application for accreditation.
(g) Notifications of course schedules.
(h) Course participant information.
(i) Examination results.
(j) Copies of the certificates issued.
(2) The training program shall notify the department in writing within 30 days of changing the address specified on its training program accreditation application or transferring the records from that address.
History: 2005 MR 7, Eff. Feb. 2, 2005.

R 325.99204 Quality control plan.
Rule 204. The training manager shall develop and implement a quality control plan designed to maintain and improve the quality of the training program. The quality control plan shall contain at least both of the following elements:
(a) Procedures for periodic revision of training materials and the course test to reflect innovations in the field.
(b) Procedures for the training manager's annual review of each principal instructor's competence.
History: 2005 MR 7, Eff. Feb. 2, 2005.

R 325.99205 Core lead basics course requirements.
Rule 205. A training program accredited under section 5462 of the act shall provide a training course that meets all of the following requirements to become accredited for core lead basics:

(a) The training course shall last a minimum of 8 training hours.
(b) The training course shall include, at a minimum, all of the following course topics:
(i) The roles and responsibilities of lead-based paint professionals.
(ii) Background information on the nature of lead, its uses, adverse health effects, exposure monitoring methods, and sources of exposure to humans.
(iii) Background information on federal and state regulations and guidance that pertain to lead-based paint activities including generally applicable occupational health and safety standards.
(iv) The requirements and procedures for certification under the lead abatement act and these rules.
History: 2005 MR 7, Eff. Feb. 2, 2005.

R 325.99206 Lead abatement worker training course requirements.
Rule 206. A training program accredited under section 5462 of the act shall provide a training course that meets the following requirements in order to become accredited for the discipline of lead worker:
(a) The training course shall last a minimum of 16 training hours, with a minimum of 8 hours devoted to hands-on training activities.
(b) The training course shall include, at a minimum, all of the following course topics:
(i) The role and responsibilities of a lead worker.
(ii) Lead exposure in construction standard, R 325.51991 and R 325.51992.
(iii) The following topics which have hands-on activities as an integral part of the course:
(A) Lead-based paint hazard control methods, both permanent and temporary, including restricted practices.
(B) Interior dust-lead hazard control methods, both permanent and temporary, and cleanup procedures.
(C) Soil-lead hazard and exterior dust hazard control methods, both permanent and temporary.
(D) Personal protective equipment selection, use, and care.
History: 2005 MR 7, Eff. Feb. 2, 2005.

R 325.99207 Lead abatement supervisor training course requirements.
Rule 207. A training program accredited under section 5462 of the act shall provide a training course that meets the following requirements to become accredited for the discipline of supervisor:
(a) The training course shall last a minimum of 8 training hours, with a minimum of 3 hours devoted to hands-on activities.
(b) The training course shall include, at a minimum, all of the following course topics:
(i) The role and responsibilities of a supervisor.
(ii) Liability and insurance issues relating to lead -based paint hazard control.
(iii) Cleanup and waste disposal.
(vi) Recordkeeping.
(v) The following topics which have hands-on activities as an integral part of the course:
(A) Risk assessment and inspection report interpretation.
(B) The development and implementation of an occupant protection plan and hazard control report.
(C) Lead-based paint hazard recognition and control.
(D) Clearance standards and testing, including retesting procedures.
History: 2005 MR 7, Eff. Feb. 2, 2005.

R 325.99208 Inspector training course requirements.
Rule 208. A training program accredited under section 5462 of the act shall provide a training course that meets the following requirements to become accredited for the discipline of inspector:
(a) The training course shall last a minimum of 16 training hours, with a minimum of 6 hours devoted to hands-on training activities.
(b) The training course shall include, at a minimum, all of the following course topics:
(i) The role and responsibilities of an inspector.
(ii) Recordkeeping.
(iii) The following topics which also have hands-on activities as an integral part of the course:
(A) Most current lead-based paint inspection methods, including the selection of rooms and components for sampling or testing.
(B) Documented sampling methodologies, including X-ray fluorescence.
(C) Clearance standards and testing, including random selection of sampling sites and retesting.
(D) Preparation of a final inspection report.
History: 2005 MR 7, Eff. Feb. 2, 2005.

R 325.99209 Risk assessor training course requirements.
Rule 209. A training program accredited under section 5462 of the act shall provide a training course that meets all of the following requirements to become accredited for the discipline of risk assessor:
(a) The training course shall last a minimum of 16 training hours, with a minimum of 6 hours devoted to hands-on training activities.
(b) The training course shall include, at a minimum, all the following course topics:
(i) The role and responsibilities of a risk assessor.
(ii) Sources of environmental lead contamination such as paint, surface dust, soil, water, air, packaging, and food.
(iii) The collection of background information to perform a risk assessment.
(iv) Recordkeeping.
(v) The following topics which have hands-on activities as an integral part of the course:
(A) Visual inspection for the purposes of identifying potential sources of lead-based paint hazards.
(B) Most current sampling methods for other sources of lead exposure.
(C) The interpretation of lead-based paint and other lead sampling results, including applicable state or federal guidance or regulations pertaining to lead-based paint hazards.
(D) The development of lead hazard control options, both permanent and temporary, including operations and maintenance activities.
(E) Preparation of a final risk assessment report.
History: 2005 MR 7, Eff. Feb. 2, 2005.

R 325.99210 Clearance technician training course requirements.
Rule 210. A training program accredited under section 5462 of the act shall provide a training course that meets all of the following requirements become accredited for the discipline of clearance technician:
(a) The training course shall last a minimum of 8 training hours with a minimum of 2 hours devoted to hands-on training activities.
(b) The training course shall include, at a minimum, all of the following course topics:
(i) The role, responsibilities, and limitations of a clearance technician.
(ii) Background information on federal, state, and local regulations and guidance that pertains to non-abatement lead hazard control activities.
(iii) Recordkeeping.
(iv) The following topics which have hands-on activities as an integral part of the course:
(A) Documented lead-based paint clearance sampling methodologies, including visual assessment, and selection of locations and components for sampling.
(B) Clearance standards and testing.
(C) Interpretation of sample results and retesting procedures.
(D) Preparation of the clearance report.
History: 2005 MR 7, Eff. Feb. 2, 2005.

R 325.99211 Project designer training course requirements.
Rule 211. A training program accredited under section 5462 of the act shall provide a training course that meets all of the following requirements to become accredited for the discipline of project designer:
(a) The training course shall last a minimum of 8 training hours.
(b) The training course shall include, at a minimum, all of the following topics:
(i) The role and responsibilities of a project designer.
(ii) The development and implementation of an occupant protection plan for large-scale lead hazard control projects. Hands-on activities shall be an integral part of this topic.
(iii) Lead-based paint hazard control methods, both permanent and temporary, for large-scale lead hazard control projects, including restricted practices
(iv) Interior dust-lead hazard control methods, both permanent and temporary, and cleanup procedures for large-scale lead hazard control projects.
(v) Clearance standards and testing for large-scale lead hazard control projects.
(vi) Integration of lead-based paint hazard control methods with modernization and rehabilitation projects for large-scale lead hazard control projects.
(vii) Preparation of lead hazard control specifications for multi family housing and child-occupied facilities.
History: 2005 MR 7, Eff. Feb. 2, 2005.

R 325.99212 Requirements for accreditation of refresher training.
Rule 212. (1) To become accredited to offer a refresher training course for the disciplines described in R 325.99201, a training program shall ensure that its course of study includes, at a minimum, all of the following:
(a) A review of the curriculum topics of the initial courses prescribed in these rules or other rules promulgated by the department.
(b) An overview of current safety practices relating to lead-based paint activities in general, as well as specific information pertaining to the appropriate discipline.
(c) Current laws and regulations relating to lead-based paint activities in general, as well as specific information pertaining to the appropriate discipline.
(d) Current technologies relating to lead-based paint activities in general, as well as specific information pertaining to the appropriate discipline.
(2) A training program may apply for accreditation of a refresher course concurrently with its application for accreditation of the corresponding initial training course.
(3) Each refresher course, except for the project designer course, shall last a minimum of 8 training hours. The project designer refresher course shall last a minimum of 4 training hours. The supervisor and project designer refresher courses may be conducted concurrently if the materials for each are adequately covered.
(4) For each refresher course offered, the training program shall conduct a course test at the completion of the course.
(5) A training program's application for accreditation of the refresher course shall include all of the following information:
(a) A copy of the student and instructor manuals to be used for each course.
(b) A copy of the course agenda for each course.
(c) A description of the facilities and equipment to be used for lectures and hands-on training.
(d) A copy of the course test blueprint for each course.
(e) A description of the activities and procedures that shall be used for conducting the assessment of hands-on skills for each course, if applicable.
(f) A copy of the quality control plan as described in R 325.99204.
History: 2005 MR 7, Eff. Feb. 2, 2005.

R 325.99213 Reaccreditation of training program.
Rule 213. (1) A training program seeking to maintain accreditation to offer courses in lead-based paint activities shall annually submit to the department both of the following: (a) An application containing all of the following information:
(i) The training program's name, address, and telephone number.
(ii) A list of courses for which the program is applying for reaccreditation.
(iii) A description of any changes to the training facility, equipment, course materials, or instructors since the program's last application was approved.
(iv) A statement signed by the program manager stating both of the following:
(A) The training program complies at all times with the requirements of the act and these rules.
(B) The recordkeeping and reporting requirements of these rules shall be followed.
(b) The fee or fees specified in the act and these rules.
(2) A training program seeking reaccreditation under subrule (1) of this rule shall submit the application, including the appropriate fees, not less than 45 days before the expiration date of the previous year's accreditation.
(3) The training program's accreditation shall not expire during the department's review or audit of a timely and sufficient reaccreditation application.
History: 2005 MR 7, Eff. Feb. 2, 2005.

PART 3. CERTIFIED INDIVIDUALS AND FIRMS

R 325.99301 Lead professional certification; disciplines; third party examination.
Rule 301. (1) An individual may seek certification by the department under section 5468 of the act to engage in lead-based paint activities in the following disciplines:
(a) Lead worker
(b) Lead supervisor
(c) Lead inspector
(d) Risk assessor
(e) Clearance technician

(f) Project designer.
(2) An individual may seek endorsement by the department to conduct EBL environmental investigations as an EBL investigator. An individual seeking endorsement under this subrule shall submit an application to the department demonstrating compliance with the requirements of R 325.99302 for EBL investigator.
(3) An individual seeking certification under subrule (1) of this rule to engage in lead-based paint activities shall pay the appropriate fees required under the act and submit an application to the department demonstrating either of the following:
(a) Compliance with the requirements of R 325.99302 for the specific discipline for which certification is sought.
(b) Possession of a valid lead-based paint certification, license, or equivalent, as determined by the department, issued by an EPA lead-based paint training and certification program, or a program that has been authorized by the EPA pursuant to 40 CFR part 745, in the specific discipline for which certification is sought, including successful completion of a third-party examination.
(4) If required by R 325.99302, an individual shall pass an appropriate third-party examination within 6 months after receiving a course completion certificate to be eligible for certification. An individual is not eligible to take the third party exam more than 3 times within the 6 months after receiving a course completion certificate.
(5) The fees for third-party certification exams shall be each of the following:
(a) Inspector/risk assessor combination $125.00.
(b) All other examinations $75.00 per discipline.
(6) An individual who fails to pass the third-party examination after 3 attempts within the 6 months after receiving a course completion certificate shall retake the appropriate initial training course from an accredited training program before reapplying for certification from the department.
(7) An individual who fails to pass the third-party examination within 3 years after completing the initial accredited training course shall retake the appropriate initial course from an accredited training program before applying for certification from the department.
(8) After an individual submits an application demonstrating that he or she meets the appropriate training, education, and experience requirements, and passes the appropriate certification exam, the department shall issue a certification document to the individual in the specific discipline for which certification is sought. To maintain certification, an individual shall be recertified pursuant to R 325.99304.
History: 2005 MR 7, Eff. Feb. 2, 2005.

R 325.99302 Lead professional certification requirements; inspector; risk assessor; clearance technician; supervisor; worker; project designer; endorsement as EBL investigator.
Rule 302. (1) Individuals seeking certification as a lead abatement worker under section 5468 of the act shall meet all of the following requirements:
(a) Successfully complete both of the following courses:
(i) An accredited core lead basics course.
(ii) An accredited training course for lead abatement workers.
(b) Pass the third-party examination for lead abatement worker. Additional experience or education is not required.
(2) Individuals seeking certification as a lead abatement supervisor under section 5468 of the act shall meet all of the following requirements:
(a) Successfully complete all of the following courses:
(i) An accredited core lead basics course.
(ii) An accredited training course for workers.
(iii) An accredited training course for supervisors.
(b) Pass the third-party examination for supervisor.
(c) Have either of the following:
(i) Not less than 1 year of experience as a certified lead abatement worker.
(ii) Not less than 2 years of experience in a related field, for example, lead, asbestos, environmental remediation work, building construction, or the building trades.
(3) Individuals seeking certification as a lead inspector under section 5468 of the act shall meet all of the following requirements:
(a) Possess a high school diploma, or equivalent.
(b) Successfully complete both of the following courses:
(i) An accredited core lead basics course.
(ii) An accredited training course for inspectors.
(c) Pass the third-party examination for lead inspector. No additional experience is required.
(4) Individuals seeking certification as a lead risk assessor under section 5468 of the act shall meet all of the following

requirements:
(a) Successfully complete all of the following:
(i) An accredited core lead basics course.
(ii) An accredited training course for inspectors.
(iii) An accredited training course for risk assessors.
(b) Pass the third party examinations for both inspector and risk assessor, or a combination thereof, as determined by the department.
(c) Have any 1 of the following:
(i) Possess a bachelor's degree, and have not less than 1 year of experience in a related field, for example, lead, asbestos, building construction, or environmental remediation work.
(ii) Possess an associate's degree, and have not less than 2 years of experience in a related field, for example, lead, asbestos, building construction, or environmental remediation work.
(iii) Possess a high school diploma or equivalent and have not less than 3 years of experience in a related field, for example lead, asbestos, building construction, or environmental remediation work.
(iv) Be certified or registered as any 1 or more of the following:
(A) Industrial hygienist.
(B) Safety professional.
(C) Professional engineer.
(D) Nurse.
(E) Sanitarian.
(F) Architect.
(G) Other related field, as determined by the department.
(5) Individuals seeking certification as a lead clearance technician under section 5468 of the act shall meet all of the following requirements:
(a) Successfully complete both of the following courses:
(i) An accredited core lead basics course.
(ii) An accredited training course for clearance technicians.
(b) Pass the third-party examination for clearance technician.
(c) Possess either of the following:
(i) A high school diploma, or equivalent.
(ii) Not less than 1 year experience in a related field, for example, lead remediation work, building construction, building trades, or structural inspection of residential dwellings.
(6) Individuals seeking certification as a lead project designer under section 5468 of the act shall meet all of the following requirements:
(a) Possess a current certification from the department for lead supervisor.
(b) Successfully complete an accredited training course for project designers.
(c) Have either of the following:
(i) Not less than 4 years of experience in building construction and design or a related field.
(ii) Possess a bachelor's degree in engineering, architecture, or a related profession and not less than 1 year of experience in building construction and design or a related field.
(7) Individuals seeking endorsement as EBL investigator shall meet both of the following requirements:
(a) Possess a current certification from the department as risk assessor.
(b) Pass a written proficiency examination for EBL investigator.
(8) The department recognizes the following documents as evidence of meeting the requirements specified in this rule:
(a) Official academic transcripts or diploma as evidence of meeting the education requirements.
(b) Resumes, letters of reference, or documentation of work experience as evidence of meeting the work experience requirements.
(c) Course completion certificates from lead-specific or other related training courses issued by accredited training programs as evidence of meeting the training requirements.
History: 2005 MR 7, Eff. Feb. 2, 2005.

R 325.99303 Lead abatement firm; certification.
Rule 303. (1) A person seeking certification by the department under section 5469 of the act to engage in lead abatement activities as a lead hazard control firm shall pay the appropriate application fee and submit an application to the department including all of the following information:
(a) Corporate identification number, certificate of sole proprietorship, or other business entity documentation acceptable to

the department.
(b) Indication of applicant's liability insurance, if any.
(c) Proof of Michigan workers' compensation liability insurance.
(d) Proof that each employee or agent involved in lead-based paint activities has received training and certification as required by the act.
(e) If applicable, the name of each principal partner, shareholder, member, or owner.
(2) Not more than 90 days from the date of receipt of the person's completed application, the department shall approve or disapprove the person's request for certification as a lead hazard control firm. Within that time period, the department shall respond with either a certificate of approval or a letter describing the reasons for a disapproval.
History: 2005 MR 7, Eff. Feb. 2, 2005.

R 325.99304 Recertification.
Rule 304. (1) In accordance with the act, a person or firm seeking to maintain certification to engage in lead abatement activities shall annually submit to the department, on forms provided by the department, all required information and pay the appropriate fees.
(2) Individuals seeking to engage in lead-based paint activities shall recertify with the department every 3 years.
(3) Persons seeking recertification under subrule (2) of this rule shall successfully complete an accredited refresher training course for the discipline for which they seek recertification, and successfully pass the third-party examination for that discipline within 6 months after completion of the training course. Individuals seeking to maintain certification as risk assessor must complete both the inspector and risk assessor refresher training courses, and pass both the inspector and risk assessor third-party examinations or a combination thereof.
(4) A person shall not be required to retake the core lead basics course in order to be eligible for recertification.
(5) Persons seeking to maintain endorsement to conduct EBL environmental investigations shall reapply to the department every 3 years.
History: 2005 MR 7, Eff. Feb. 2, 2005.

PART 4. WORK PRACTICE STANDARDS

R 325.99401 Work practice standards for conducting lead-based paint activities; documented methodologies; *de minimis* levels.
Rule 401. (1) Only a certified individual may perform any of the following lead-based paint activities:
(a) A lead-based paint investigation.
(b) A lead abatement activity.
(c) An EBL environmental investigation.
(d) Clearance procedures.
(2) A certified individual shall perform an activity listed in subrule (1) of this rule in accordance with these rules and 1 or more of the following documented methodologies:
(a) The United States department of housing and urban development (HUD) publication entitled "Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing." A copy of this document may be obtained at no charge as of the date of adoption of these rules from HUD USER, P.O. Box 6091, Rockville, Maryland 20849; or www.hud.gov/offices/lead.
(b) Part 35 of title 24 of the code of federal regulations, entitled "Requirements for Notification, Evaluation and Reduction of Lead-Based Paint Hazards in Federally Owned Residential Property and Housing Receiving Federal Assistance." A copy of this document may be obtained at no charge as of the date of adoption of these rules from HUD USER, P.O. Box 6091, Rockville, Maryland 20849; or www.hud.gov/offices/lead.
(c) The American society for testing and materials' (ASTM) publication entitled "Standard Practices for Field Collection of Soil Samples for Lead Determination by Atomic Spectrometry Techniques," standard number E1727. A copy of this document may be obtained from the American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, Pennsylvania 19428. A copyright fee shall be charged by ASTM for this document, as of the date of adoption of these rules.
(d) The ASTM's publication entitled "Standard Practices for Field Collection of Settled Dust Samples Using Wipe Sampling Methods for Lead Determination by Atomic Spectrometry Techniques," standard number E1728. A copy of this document may be obtained from the American society for testing and materials, 100 Barr Harbor Drive, West Conshohocken, Pennsylvania 19428. A copyright fee shall be charged by ASTM for this document, as of the date of adoption of these rules.
(e) Michigan department of community health document, entitled, "Environmental Investigations for Children with Elevated

Blood Lead Levels," and herein referred to as the EBL field guide. A copy of this document may be obtained at no charge as of the date of adoption of these rules from the Michigan Department of Community Health, Lead Hazard Remediation Program, 3423 North Martin L. King, Jr. Boulevard, Lansing, Michigan 48906, or www.michigan.gov/leadsafe.
(3) Only an appropriate certified lead professional shall conduct any paint, dust, or soil sampling or testing as part of an activity described in subrule(1) of this rule. The certified professional shall use documented methodologies that incorporate adequate quality control procedures.
(4) Analytical procedures and facilities recognized by the EPA as capable of performing analyses for lead compounds in the applicable matrix shall be used to determine if any paint chip, dust, or soil samples collected as part of an activity described in subrule (1) of this rule contain detectable levels of lead that may be quantified numerically.
(5) Composite dust or paint samples shall not be used.
(6) Notification and work practice standards required by the lead abatement act or these rules do not apply when treating any of the following amounts of painted surfaces:
(a) Less than 2 square feet of interior painted surface per room, stairwell, hallway, porch, or room equivalent.
(b) Less than 20 square feet of painted surface on a building exterior.
(c) Less than 10% of the total surface area of painted surface on any type of interior component with a small surface area.
History: 2005 MR 7, Eff. Feb. 2, 2005.

R 325.99402 Hazard and clearance levels.
Rule 402. (1)The department shall publish clearance levels established for the completion of lead hazard control activities as necessary to comply with corresponding levels established by federal regulations.
(2) Dust-lead hazard levels shall be the same levels as the clearance levels published by the department.
(3) The department shall publish soil-lead hazard levels as necessary for compliance with federal requirements.
History: 2005 MR 7, Eff. Feb. 2, 2005.

R 325.99403 Lead inspection.
Rule 403. (1) Only a person certified by the department as an inspector or risk assessor shall conduct an inspection. The inspector or risk assessor shall conduct the inspection according to this rule.
(2) When conducting an inspection, an inspector or risk assessor shall select the following locations according to documented methodologies and shall test the locations for the presence of lead-based paint:
(a) Each interior and exterior component that has a distinct painting history, except for components that the inspector or risk assessor determines have been replaced after 1978 or do not contain lead-based paint.
(b) In a multifamily dwelling or child-occupied facility, each component that has a distinct painting history, and in every common area, except for components that the inspector or risk assessor determines have been replaced after 1978 or do not contain lead-based paint.
(3) The certified inspector or risk assessor shall prepare an inspection report for each inspection. The report shall include all of the following information:
(a) Date of each inspection.
(b) Address of building.
(c) Date of construction.
(d) Apartment numbers, if applicable.
(e) Name, address, and telephone number of the owner or owners.
(f) Name, signature, and certification number of each certified inspector or risk assessor, or both, conducting testing.
(g) Name, address, and telephone number of the certified person employing each inspector or risk assessor, or both, if applicable.
(h) Each testing method and device and sampling procedure employed for paint analysis, including quality control data and, if used, the serial number of any X-ray fluorescence device.
(i) Specific locations of each painted component tested for the presence of lead-based paint.
(j) The results of the inspection expressed in terms appropriate to the sampling method used.
History: 2005 MR 7, Eff. Feb. 2, 2005.

R 325.99404 Risk assessment.
Rule 404. (1) Only a person certified by the department as a risk assessor shall conduct a risk assessment. A risk assessor shall conduct the risk assessment according to this rule.
(2) The risk assessor shall make a visual inspection for risk assessment of a residential dwelling or child-occupied facility to locate the existence of lead-based paint hazards and assess the extent and causes of the hazards.
(3) The risk assessor shall collect background information regarding the physical characteristics of the residential dwelling or

child-occupied facility and occupant use patterns that may cause lead-based paint exposure to 1 or more children age 6 years and under.
(4) The risk assessor shall test, using documented methodologies, each surface that has deteriorated paint for the presence of lead if the surface is determined to be in poor condition and to have a distinct painting history. A risk assessor shall also test, using documented methodologies, any additional surface for the presence of lead if the surface is determined to be a potential lead-based paint hazard and to have a distinct painting history.
(5) In residential dwellings, the risk assessor shall collect the following dust samples in not less than 6 representative rooms, hallways, stairwells, or room equivalents:
(a) One dust sample from the floor of each selected room, hallway, or stairwell.
(b) One dust sample from a window sill or trough, if available, in each selected room, hallway or stairwell. Dust samples from windows shall be collected by alternating the sill and trough in each room to the extent possible.
(c) If there are less than 6 rooms, hallways, stairwells, or room equivalents in the dwelling, then the risk assessor shall sample all rooms, hallways, and stairwells.
(6) For multifamily dwellings and child-occupied facilities, the risk assessor shall collect the dust samples required in subrule (5) of this rule in each selected unit. In addition, a risk assessor shall collect window and floor dust samples in the following locations:
(a) Common areas adjacent to the sampled residential dwelling or child-occupied facility.
(b) Other common areas in the building where the risk assessor determines that 1 or more children, age 6 and under, could reasonably be expected to come into contact with dust, regardless of the current occupancy by children in the dwelling.
(7) For child-occupied facilities, the risk assessor shall collect 1 dust sample from the window sill or trough and 1 dust sample from the floor in each room, hallway, or stairwell utilized, to the extent defined by a child-occupied facility, by 1 or more children, age 6 and under; and in other common areas in the child-occupied facility where the risk assessor determines that 1 or more children, age 6 and under, could reasonably be expected to come into contact with dust to the extent defined by a child-occupied facility.
(8) The risk assessor shall collect soil samples and have the samples analyzed for lead concentrations in the all of following locations:
(a) Exterior play areas where bare soil is present.
(b) Dripline/foundation areas where bare soil is present
(c) Yard locations in addition to those described in subdivisions (a) and (b) of this subrule where the area of bare soil exceeds 9 square feet.
(9) The risk assessor shall compare the lead levels from each sample, as determined by the approved analysis, with applicable hazard levels for lead in paint, dust and soil established in these rules. The risk assessor shall determine a lead hazard for the area represented by each sample which exceeds the hazard levels.
(10) The certified risk assessor shall prepare a risk assessment report, which shall include all of the following information:
(a) Date of assessment.
(b) Address of each building.
(c) Date of construction of buildings.
(d) Apartment number, if applicable.
(e) Name, address, and telephone number of each owner of each building.
(f) Name, signature, and certification identification of the certified risk assessor conducting the assessment.
(g) Name, address, and telephone number of the certified person employing each certified risk assessor, if applicable.
(h) Name, address, and telephone number of each recognized laboratory conducting analyses of collected samples.
(i) Results of the visual inspection.
(j) Testing method and sampling procedure for the paint analysis employed.
(k) Specific location of each painted component tested for the presence of lead.
(l) All data collected from on-site testing, including quality control data, and, if used, the serial number of any X-ray fluorescence device.
(m) All results of approved analysis on collected paint, soil, and dust samples.
(n) Any other sampling results.
(o) Any background information collected under subrule (3) of this rule.
(p) To the extent that they are used as part of the lead-based paint hazard determination, the results of any previous inspections or analyses for the presence of lead-based paint or other assessments of lead-based paint-related hazards.
(q) A description of the location, type, and severity of identified lead-based paint hazards, and any other potential lead hazards.
(r) A description of lead hazard control options for each identified lead hazard or potential hazard, and a suggested prioritization for addressing each hazard. If the use of an encapsulant or enclosure is recommended, then the report shall

recommend a maintenance and monitoring schedule for the encapsulant or enclosure.
History: 2005 MR 7, Eff. Feb. 2, 2005.

R 325.99405 EBL environmental investigation.
Rule 405. (1) Only an individual endorsed by the department as an EBL investigator shall conduct an EBL environmental investigation. The EBL investigator shall conduct the EBL environmental investigation in accordance with the procedures in the Michigan department of community health document entitled, "Environmental Investigations for Children with Elevated Blood Lead Levels".
(2) The EBL investigator shall prepare an EBL environmental investigation report for each investigation in accordance with pertinent parts of the field guide, and shall include, but is not limited, the following information:
(a) Potential sources of exposure to lead to 1 or more children age 6 years or less.
(b) Methods of minimizing or eliminating exposures to lead to 1 or more children age 6 years or less.
(3) The EBL investigator shall provide the report required by subrule (2) of this rule to both of the following:
(a) The property owner.
(b) The parent or guardian of the child with an elevated blood lead level, if different than the property owner.
History: 2005 MR 7, Eff. Feb. 2, 2005.

R 325.99406 Lead hazard control activities.
Rule 406. (1) Only an individual who has successfully completed either of the following training courses shall conduct non-abatement lead hazard control activities:
(a) A lead-safe work practices training course approved by HUD.
(b) An accredited lead abatement worker course.
(2) Only an individual certified by the department as a lead worker, lead supervisor or project designer shall conduct lead abatement activities.
(3) Individuals performing lead hazard control activities shall conduct those activities according to this rule.
(4) A certified supervisor is required for each lead hazard control project. The certified supervisor shall be at the site during all lead abatement activities, and during all setup and cleaning activities for non-abatement lead hazard control work.
(5) The certified supervisor and the certified firm employing the supervisor shall ensure that all lead hazard control activities are conducted according to this rule and all other federal, state, and local requirements.
(6) A certified supervisor or project designer shall develop a written occupant protection plan for all lead hazard control projects according to the following procedures:
(a) The occupant protection plan shall be specific to each residential dwelling or child-occupied facility and be developed before the lead hazard control activities begin. The certified supervisor shall maintain the occupant protection plan at the work site during all lead hazard control activities.
(b) The occupant protection plan shall describe the measures and management procedures that shall be taken during the lead hazard control project to protect the building occupants from exposure to any lead-based paint hazards.
(c) The procedures described in the occupant protection plan shall be implemented during the lead hazard control project.
(7) The certified supervisor shall ensure compliance with all of the following restricted work practices during lead hazard control activities:
(a) Open-flame burning or torching of lead-based paint is prohibited.
(b) Machine sanding or grinding or abrasive blasting and sandblasting of lead-based paint is prohibited, unless the sanding, grinding, blasting, or sandblasting is conducted using HEPA exhaust controls.
(c) Dry scraping of lead-based paint is permitted only in conjunction with heat guns or around electrical outlets or when treating defective paint spots totaling not more than 2 square feet in any 1 room, hallway, or stairwell or totaling not more than 20 square feet on exterior surfaces.
(d) Operating a heat gun on lead-based paint is permitted only if the temperature designed to be generated by the heat gun is less than 1100 degrees Fahrenheit.
(8) The certified supervisor shall ensure that all materials used to define containment of work areas remains intact until the successful completion of clearance procedures.
(9) If soil abatement is conducted, the contractor shall perform the abatement in either of the following ways:
(a) If soil is removed, replace the lead-contaminated soil with soil having a lead concentration no greater than the soil-lead hazard levels established by these rules for play areas.
(b) If soil is not removed, the lead abatement firm shall permanently cover, as defined in section 5459 of the act, the soil-lead hazard.
(10) If abatement involves encapsulation, then the lead abatement firm shall perform the encapsulation using an encapsulant approved by the department and shall apply encapsulant in accordance with the manufacturer's instructions.

(11) Immediately following an exterior lead hazard control activity, the certified supervisor shall conduct a visual inspection of all horizontal surfaces in the outdoor living areas near the abated surfaces to ensure that visible dust and debris have been removed. In addition, the supervisor shall conduct a visual inspection to determine the presence of paint chips on the dripline, next to the foundation below any exterior surface abated, or in any areas of bare soil onto which paint chips could reasonably be expected to have been deposited during lead hazard control activities. If visible dust, debris, or paint chips are present, the lead hazard control firm shall remove the visible dust, debris, or paint chips from the site and properly dispose of them according to applicable federal, state, and local requirements.
(12) A certified supervisor or project designer shall prepare a lead hazard control activity report at the completion of each lead hazard control activity. The report shall include, but is not limited to, all of the following information:
(a) Start and completion dates of lead hazard control project.
(b) The name and address of each person performing lead hazard control work and the name of each certified supervisor assigned to the project.
(c) The occupant protection plan prepared under subrule (6) of this rule.
(d) The name, address, and signature of each certified clearance professional conducting clearance sampling and the date of clearance testing.
(e) The results of clearance testing and all soil analyses, if applicable, and the name of each recognized laboratory that conducted the analyses.
(f) A written description of the lead hazard control project, including all of the following:
(i) Hazard control methods used.
(ii) Locations of rooms and components where lead hazard control activities occurred.
(iii) Reason for selecting particular lead hazard control methods for each component.
(iv) Any suggested monitoring of remaining lead-based paint or enclosed or encapsulated surfaces.
History: 2005 MR 7, Eff. Feb. 2, 2005.

R 325.99407 Clearance procedures.
Rule 407. (1) A clearance examination shall be performed in target housing and child-occupied facilities following all lead hazard control activities.
(2) Only a certified inspector or risk assessor shall perform clearance procedures following abatement.
(3) A certified clearance professional who is completely independent of the lead hazard control firm shall conduct clearance procedures following any lead hazard control activity according to the following procedures:
(a) Conduct a visual inspection for clearance testing to determine if deteriorated painted surfaces described in the scope of hazard control work, or visible amounts of dust, debris, or residue are still present. If deteriorated painted surfaces described in the scope of hazard control work, or visible amounts of dust, debris, or residue are present, then the person conducting the lead hazard control activity shall eliminate the conditions before continuing the clearance procedures.
(b) After the visual inspection and any post-project cleanup required by subdivision (a) of this subrule, an independent clearance professional shall conduct clearance dust-lead sampling. Clearance sampling shall be conducted as appropriate based upon the extent or manner of lead hazard controls conducted in or to the residential dwelling or child-occupied facility. All of the following provisions apply to lead hazard control clearance sampling:
(i) After conducting lead hazard control activities using containment of work areas, the clearance professional shall take 1 dust sample from 1 window, if available, and 1 dust sample from the floor of not less than 4 rooms, hallways, stairwells, or room equivalents within the containment area. Dust samples from windows shall be collected by alternating the sill and trough in each room, to the extent possible. In addition, the clearance professional shall take 1 dust sample from the floor outside the containment area. If there are less than 4 rooms, hallways, stairwells, or room equivalents within the containment area, then the clearance professional shall sample all rooms, hallways, and stairwells.
(ii) After conducting hazard control activities with no containment, the clearance professional shall take 1 dust sample from 1 window, if available, and 1 dust sample from the floor of not less than 4 rooms, hallways, stairwells, or room equivalents in the residential dwelling or child-occupied facility, to include sleeping areas of 1 or more children, 6 years of age or less. Dust samples from windows shall be collected by alternating the sill and trough in each room, to the extent possible. If there are less than 4 rooms, hallways, stairwells, or room equivalents within the residential dwelling or child-occupied facility, then the clearance professional shall sample all rooms, hallways, and stairwells.
(iii) The clearance professional shall take dust samples for clearance purposes using documented methodologies that incorporate adequate quality control procedures.
(iv) The clearance professional shall take dust samples for clearance purposes not less than 1 hour after completion of final lead hazard control cleanup activities.
(c) The clearance professional shall select the rooms, hallways, stairwells, or room equivalents for sampling according to documented methodologies, as is defined in rule 325.99401(2).

(d) The certified clearance professional shall compare the residual lead level, as determined by appropriate analysis, from each dust sample with applicable clearance levels for lead in dust. If the residual lead levels in a dust sample exceed the clearance levels, then the person conducting the lead hazard control activity shall reclean, and the clearance professional shall retest all the components represented by the failed sample until clearance levels are met.
(4) For multifamily dwellings and child-occupied facilities, the clearance professional shall collect the dust samples required in subrule (3) of this rule in each selected unit. In a multifamily dwelling that has more than 4 similarly constructed and maintained residential dwelling units, a certified inspector or risk assessor may conduct random sampling, in accordance with documented methodologies, for the purpose of clearance sampling, only if
all of the following provisions are satisfied:
(a) The certified individuals who abate or clean the residential dwelling units do not know which residential dwelling will be selected for the random samples.
(b) A sufficient number of residential dwelling units are selected for dust sampling to provide a 95% level of confidence that not more than 5% or 50 of the residential dwelling units, whichever is smaller, in the randomly sampled population exceed the appropriate clearance levels.
(c) The randomly selected residential dwelling units are sampled and evaluated for clearance according to the procedures in this subrule.
(d) The similarly constructed and maintained residential dwelling units from which the sampled units are to be selected may not be re-occupied at any time following the completion of the hazard control activities until the successful completion of clearance procedures.
(5) For clearance sampling in multi-family dwellings and child-occupied facilities, a risk assessor or inspector shall also collect window and floor dust samples in the following locations:
(a) Common areas adjacent to the sampled residential dwelling or child-occupied facility.
(b) Other common areas in the building where the risk assessor determines that 1 or more children, age 6 and under, could reasonably be expected to come into contact with dust, regardless of the current occupancy by children in the dwelling.
(6) Following an exterior lead hazard control activity, the certified clearance professional shall conduct a visual inspection of all horizontal surfaces in the outdoor living area closest to the surfaces disturbed by the lead hazard control activities to ensure that visible dust and debris have been removed. The certified clearance professional shall also conduct a visual inspection to determine the presence of paint chips on the dripline or next to the foundation below any exterior abated surface. If visible dust, debris, or paint chips are present, then the person conducting the lead hazard control activity shall remove the visible dust, debris, or paint chips from the site and properly dispose of them according to all applicable federal, state, and local requirements.
(7) A certified clearance technician shall not perform any of the following clearance procedures:
(a) Clearance testing following abatement activities.
(b) Clearance testing in multi family dwellings which are comprised of more than 4 units.
(c) Sampling described in subrule (4) of this rule using random selection of units.
(8) Following clearance testing of lead hazard control activities, the clearance professional shall prepare a clearance report. The clearance report shall include all of the following information:
(a) Address of the unit or units where lead hazard control activities were performed.
(b) The name, address, and phone number of the persons performing the lead hazard control activity.
(c) Start and completion dates of the project.
(d) The name, address, and signature of each certified clearance professional conducting clearance sampling and the date of clearance testing.
(e) The results of clearance testing and the name of each recognized laboratory that conducted the analyses, where applicable.
History: 2005 MR 7, Eff. Feb. 2, 2005.

R 325.99408 Notifications; pre-renovation education.
Rule 408. (1) Not less than 3 business days before commencing a lead hazard control activity, a person who conducts lead abatement activities shall notify the department, on forms provided by the department, regarding information the department considers necessary to conduct an unannounced site inspection, including schedule changes. The department shall approve emergency notification that is less than 3 business days in the following situations:
(a) In the case of court-ordered lead abatement.
(b) In other cases where the department waives the 3-business-day requirement to protect the health and safety of the public.
(c) In the case of an unavoidable change in a lead abatement activity that occurs less than 3 days before the activity begins.
(2) A person who conducts lead abatement activities shall not provide, in any case, the notification specified in subrule (1) of this rule less than 24 hours before commencing the activities.

(3) A person or individual who provides emergency notification shall receive confirmation of departmental approval of the emergency notification before initiating the activity.
(4) A person or individual who conducts a lead-based paint investigation shall notify the department, on forms provided by the department, regarding information the department considers necessary, by the fifteenth day of the month following the lead-based paint investigation.
(5) A training program that conducts lead training courses in any of the disciplines listed in R 325.99201, whether the courses are initial or refresher, shall notify the department, on forms provided by the department, not less than 7 calendar days before commencing training, regarding information the department considers necessary to conduct an unannounced site inspection. A training program shall also notify the department within 10 calendar days after a course is completed, on forms provided by the department, of the names of course participants and other information the department deems necessary. Training programs shall notify the department not less than 24 hours in advance of a course cancellation.
(6) Not more than 60 days before commencing a renovation activity for compensation in target housing or child-occupied facility, a person performing renovation shall do both of the following:
(a) Provide the owner of the dwelling or facility with the EPA's pamphlet number EPA 747-K-99-001, entitled "Protect Your Family From Lead in Your Home," or a true reproduction of the EPA pamphlet, or an equivalent pamphlet approved by the department. If the owner does not occupy the dwelling unit, then the person performing renovation shall also provide an adult occupant of the housing unit with the EPA pamphlet.
(b) Obtain a written acknowledgment of receipt of the pamphlet specified in subdivision (a) of this subrule from the owner and, if applicable, the adult occupant of the unit or facility.
(7) If the renovator is unsuccessful in obtaining a written acknowledgment from the adult occupant described in subrule(6) of this rule, then the renovator shall certify in writing all of the following:
(a) The address of the dwelling unit described in subrule(6) of this rule.
(b) That the pamphlet was delivered to the dwelling unit, including the date and method of delivery. If the pamphlet was delivered by mail, then the renovator shall obtain a certificate of mailing not less than 7 days before the renovation.
(c) That the renovator was unsuccessful in obtaining a written acknowledgment from the adult occupant, including the reason for lack of success.
History: 2005 MR 7, Eff. Feb. 2, 2005.